

# **DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

## **AIR QUALITY OPERATING PERMIT**

Permit No. AQ0265TVP02  
Application No.

Issued: Draft  
Expires: Five Years

The Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50, issues an operating permit to the Permittee, BP Exploration (Alaska) Inc., for the operation of the Crude Oil Topping Unit.

The Crude Oil Topping Unit, the Prudhoe Bay Operation Center (PBOC), and the Main Construction Camp (MCC) are considered one stationary source for purposes of determining applicability with the modification requirements of 18 AAC 50.302.

This permit satisfies the obligation of the owner and operator to obtain an operating permit as set out in AS 46.14.130(b).

As set out in AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this operating permit.

Upon effective date of this permit, Operating Permit No. AQ0265TVP01 expires.

This Operating Permit becomes effective <insert date—30 days after issue date>.

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John F. Kuterbach, Manager  
Air Permits Program

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## List of Abbreviations Used in this Permit

AAC.....	Alaska Administrative Code
ADEC .....	Alaska Department of Environmental Conservation
AS .....	Alaska Statutes
ASTM .....	American Society for Testing and Materials
BACT.....	Best Available Control Technology
BHp.....	Boiler Horsepower
C.F.R.....	Code of Federal Regulations
The Act .....	Clean Air Act
CO.....	Carbon Monoxide
dscf.....	Dry standard cubic foot
EPA.....	US Environmental Protection Agency
EU .....	Emission Unit
gr./dscf .....	grain per dry standard cubic foot (1 pound = 7000 grains)
GPH .....	gallons per hour
HAPs.....	Hazardous Air Pollutants [ <i>HAPs</i> as defined in AS 46.14.990(14)]
ID .....	Emission Unit Identification Number
kPa .....	kiloPascals
LAER.....	Lowest Achievable Emission Rate
MACT.....	Maximum Achievable Control Technology as defined in 40 C.F.R. 63.
MR&R .....	Monitoring, Recordkeeping, and Reporting
NESHAPs .....	Federal National Emission Standards for Hazardous Air Pollutants [ <i>NESHAPs</i> as contained in 40 C.F.R. 61 and 63]
NO <sub>x</sub> .....	Nitrogen Oxides
NSPS.....	Federal New Source Performance Standards [ <i>NSPS</i> as contained in 40 C.F.R. 60]
O & M.....	Operation and Maintenance
O <sub>2</sub> .....	Oxygen
PAL.....	Plantwide Applicability Limitation
PM-10 .....	Particulate Matter less than or equal to a nominal ten microns in diameter
ppm .....	Parts per million
ppmv, ppmvd .....	Parts per million by volume on a dry basis
psia.....	Pounds per Square Inch (absolute)
PSD .....	Prevention of Significant Deterioration
PTE .....	Potential to Emit
SIC .....	Standard Industrial Classification
SO <sub>2</sub> .....	Sulfur dioxide
TPH.....	Tons per hour
TPY.....	Tons per year
VOC.....	volatile organic compound [ <i>VOC</i> as defined in 40 C.F.R. 51.100(s)]
VOL.....	volatile organic liquid [ <i>VOL</i> as defined in 40 C.F.R. 60.111b, Subpart Kb]
vol%.....	volume percent
wt%.....	weight percent

## ***Section 1. Stationary Source Information***

### **Identification**

#### **Names and Addresses**

Permittee: BP Exploration (Alaska) Inc.  
P.O Box 196612  
Achorage, Alaska 99519-6612

Stationary Source Name: Crude Oil Topping Unit

Location: Section 11, Township 11N, Range 14E, Umiat Meridian (Prudhoe Bay Oilfield)

Physical Address: Section 11, Township 11N, Range 14E, Umiat Meridian (Prudhoe Bay Oilfield)

Owners:

BP Exploration (Alaska) Inc. 900 East Benson Blvd (zip 99508) P.O. Box 199612 Anchorage, AK 99519-6612	Chevron USA Inc. P.O. Box 36366 Houston, TX 77236
ConocoPhillips Alaska, Inc. 700 G. Street (zip 99501) P.O. Box 100360 Anchorage, AK 99510-0360	Exxon Company U.S.A. 3301 C Street, Suite 400 (zip 99503) P.O. box 196601 Anchorage, AK 99519-6601

Operator: BP Exploration (Alaska) Inc.

Permittee's Responsible Official John E. Kurz, GPB Operations Manager

Designated Agent: United States Company Corporation  
801 West 10th Street, Suite 300  
Juneau, Alaska 99801, (907) 586-3340

Stationary Source  
and Building Contact: Greater Prudhoe Bay Manager (East)  
(907) 659-5489

Fee Contact: Jim Pffeiffer  
P.O. Box 196612  
Anchorage Alaska 99519-6612  
(907) 564-4549  
Jim.Pffeiffer@bp.com

Permit Contact:

Jim Pfeiffer  
P.O. Box 196612  
Anchorage Alaska 99519-6612  
(907) 564-4549  
Jim.Pfeiffer@bp.com

Process Description

SIC Code:

1311 Crude Petroleum and Natural Gas

NAICS Code:

211111 Crude Petroleum and Natural Gas Extraction

[18 AAC 50.040(j)(3), 12/3/05 and 18 AAC 50.326(a), 10/1/04]  
[40 C.F.R. 71.5(c)(1 & 2), 7/1/04]

## ***Section 2. Emission Unit Inventory and Description***

Emission units listed in Table A have specific monitoring, record keeping, or reporting conditions in this permit. Emission unit descriptions and ratings are given for identification purposes only.

**Table A - Emission Units Inventory**

<b>EU ID</b>	<b>Emission unit Name</b>	<b>Emission unit Description</b>	<b>Rating/size</b>	<b>Installation Date</b>
F1	Overhead gas Flare	McGill, air-assist	250,000 SCF/day	1969 <sup>1</sup>
TK1	83-F-1 Storage tank	Residual & Naphtha	1,500 bbls	1987
H1	Gas-Fired Heater	Econotherm Crude Heater	22.7 MMBtu/hr	1969
H2	Gas-Fired Heater	Radco Crude Heater	22.7 MMBtu/hr	1975
H4	Gas-Fired Heater	Broach Glycol Heater	7.5 MMBtu/hr	Pre-1975 <sup>2</sup>
F2	Emergency Flare	McGill (pilot/purge rating)	9,000 SCF/day	1969

<sup>1</sup> The flare was modified in 1975.

<sup>2</sup> Estimated, actual date unknown.

[18 AAC 50.326(a), 10/1/04]  
[40 C.F.R. 71.5(c)(3), 7/1/04]

### **Section 3. State Requirements**

#### **Visible Emissions Standards**

1. **Industrial Process and Fuel-Burning Equipment Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs F1, H1, H2, H4, and F2 listed in Table A to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

[18 AAC 50.040(j), 12/3/05 and 18 AAC 50.326(j), 12/1/04; and 18 AAC 50.055(a)(1), 5/3/02]  
[40 C.F.R. 71.6(a)(1), 7/1/04]

- 1.1 For EU IDs H1, H2, and H4, burn only gas as fuel. Monitoring for these emission units shall consist of a certification in each operating report under condition 54 that each of these emission units fired only gas. Report under condition 53 if any fuel is burned other than gas.
- 1.2 For Source ID F1 and F2, combust only natural gas and refinery fuel gas. Comply with 40 C.F.R. 60.18(c)(1).
  - a. Certify in each operating report of Condition 54 that the source only burned refinery fuel gas and natural gas.
  - b. Report under Condition 53 if any fuel other than natural gas or refinery fuel gas as defined by 40 CFR 60.101(d) is burned.

[18 AAC 50.040(a)(1), (a)(2)(BB), (a)(2)(Z), (b)(1) and (2)(B) and (C), 6/21/98 and 18 AAC 50.0 55(a), 1/18/97]  
[40 C.F.R. 60.18(b), and 40 C.F.R. 60.11(c), 7/8/04]

- 1.3 For EU IDs F1 and F2, monitor, record and report in accordance with condition 2.

[18 AAC 50.040(j), 12/3/05 & 18 AAC 50.326(j) and 18 AAC 50.346(c), 10/1/04]  
[40 C.F.R. 71.6(a)(3), 7/1/04]

#### **Visible Emissions Monitoring, Recordkeeping and Reporting**

##### **Flares, EU IDs F1 and F2**

2. **Visible Emissions Monitoring, Recordkeeping, and Reporting.** The Permittee shall observe the first six daylight flare events<sup>1</sup> occurring during the life of this permit<sup>2</sup>.
  - 2.1 Monitor flare events using Method-9.
  - 2.2 Record the following information for observed events:
    - a. the flare(s) EU ID number;

<sup>1</sup> For purposes of this permit, a "flare event" is flaring of gas for greater than one hour as a result of scheduled lease operations, i.e. maintenance or well testing activities. It does not include non-scheduled lease operations, i.e. process upsets, emergency flaring, or de minimis venting of gas incidental to normal operations.

<sup>2</sup> Flare events monitored within 12-months prior to permit effective date may count towards the six-event total.



- b. results of the Method-9 observations;
  - c. reason(s) for flaring;
  - d. date, beginning and ending time of event; and
  - e. volume of gas flared.
- 2.3 Monitoring of a flare event may be postponed for safety or weather reasons, or because a qualified observer is not available. Until monitoring has been completed on the six flare events described in this condition, the Permittee shall either monitor each qualifying flare event or include in the next report required by condition 54, an explanation of the reason the event was not monitored.
- 2.4 Attach copies of the records required by condition 2.2 with the stationary source operating report required by condition 54.
- 2.5 Report under condition 53 whenever the opacity standard in condition 1 is exceeded.  
[18 AAC 50.040(j), 12/3/05 and 18 AAC 50.326(j)(4), 10/1/04]  
[40 C.F.R. 71.6(a)(3) & (c)(6), 7/1/04]

#### **Particulate Matter Emissions Standards**

3. **Industrial Process and Fuel-Burning Equipment Particulate Matter.** The Permittee shall not cause or allow particulate matter emitted from EU IDs F1, H1, H2, H4, and F2 listed in Table A to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.  
[18 AAC 50.040(j), 12/3/05 and 18 AAC 50.326(j), 12/1/04; and 18 AAC 50.055(b)(1), 1/18/97]  
[40 C.F.R. 71.6(a)(1), 7/1/04]
- 3.1 For EU IDs H1, H2, and H4, burn only gas as fuel. Monitoring for these emission units shall consist of a certification in each operating report under condition 54 that each of these emission units fired only gas. Report under condition 53 if any fuel is burned other than gas.
- 3.2 For EU IDs F1 and F2, the Permittee must annually certify compliance under condition 55 with the particulate matter standard.  
[18 AAC 50.040(j), 12/3/05 and 18 AAC 50.326(j) & 50.346(c), 10/1/04]  
[40 C.F.R. 71.6(a)(3), 7/1/04]

#### **Sulfur Compound Emission Standards Requirements**

4. **Sulfur Compound Emissions.** In accordance with 18 AAC 50.055(c), the Permittee shall not cause or allow sulfur compound emissions, expressed as SO<sub>2</sub>, from Source IDs F1, H1, H2, H4, and F2 to exceed 500 ppm averaged over three hours.  
[18 AAC 50.040(j), 12/3/05 and 18 AAC 50.326(j), 12/1/04; and 18 AAC 50.055(c), 1/18/97]  
[40 C.F.R. 71.6(a)(1), 7/1/04]

*For fuel gas<sup>3</sup>, EU IDs F1, H1, H2, H4, and F2*

4.1 Monitoring – The Permittee shall **either**

- a. obtain a semiannual statement from the fuel supplier of the fuel gas H<sub>2</sub>S concentration in ppm; **or**
- b. analyze a representative sample of the fuel semiannually to determine the sulfur content using 40 C.F.R. 60, Appendix A, Method 11.

4.2 Recordkeeping - Keep records of the semiannual statement from the fuel supplier or the sulfur content analysis required under conditions 4.1a or 4.1b.

4.3 Reporting -

- a. Report as excess emissions, in accordance with condition 53, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of condition 4.
- b. Include copies of the records required by condition 4.2 with the stationary source operating report required by condition 54.

[18 AAC 50.040(j), 12/3/05 and 18 AAC 50.326(j)(4), 10/1/04]  
[40 C.F.R. 71.6(a)(3) & (c)(6), 7/1/04]

**Insignificant Emission Units**

5. For emission units at the stationary source that are insignificant as defined in 18 AAC 50.326(d)-(i) that are not listed in this permit, the following apply:

5.1 The Permittee shall submit the compliance certifications of condition 55 based on reasonable inquiry;

5.2 The Permittee shall comply with the requirements of condition 30;

5.3 The Permittee shall report in the operating report required by condition 54 if an emission unit is insignificant because of actual emissions less than the thresholds of 18 AAC 50.326(e) and actual emissions become greater than any of those thresholds;

[18 AAC 50.346(b)(4), 10/1/04]

6. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from an industrial process, fuel-burning equipment, or an incinerator to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

[18 AAC 50.050(a) & 50.055(a)(1), 5/03/02]

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<sup>3</sup> Fuel gas is defined as “natural gas” as defined in 40 CFR 60.41c adopted 7/1/07.

7. The Permittee shall not cause or allow particulate matter emitted from an industrial process or fuel-burning equipment to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.055(b)(1), 1/18/97]

8. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO<sub>2</sub>, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours.

[18 AAC 50.055(c), 1/18/97]

## ***Section 4. Federal Requirements***

### **Emission Units Subject to Federal New Source Performance Standards (NSPS), Subpart A**

9. **NSPS Subpart A Notification.** For any affected facility<sup>4</sup> regulated under NSPS requirements in 40 C.F.R. 60, the Permittee shall furnish the Department and EPA written or electronic notification of:

[18 AAC 50.040(a)(1), 12/3/05]  
[40 C.F.R. 60.7(a) & 60.15(d), Subpart A, 7/1/03]

- 9.1 the date that construction or reconstruction of an affected facility commences postmarked no later than 30 days after such a date;  
[40 C.F.R. 60.7(a)(1), Subpart A, 7/1/03]
- 9.2 the actual date of initial startup of an affected facility postmarked within 15 days after startup;  
[40 C.F.R. 60.7(a)(3), Subpart A, 7/1/03]
- 9.3 any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies unless that change is specifically exempted under an applicable subpart or in 40 C.F.R. 60.14(e), postmarked as soon as practicable but no more than 60 days before the change commences;  
[40 C.F.R. 60.7(a)(4), Subpart A, 7/1/03]
- 9.4 any proposed replacement of an existing facility, for which the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, postmarked as soon as practicable, but no less than 60 days before commencement of replacement, and including the following information:  
[40 C.F.R. 60.15(d), 7/1/03]
- a. the name and address of owner or operator,
  - b. the location of the existing facility,
  - c. a brief description of the existing facility and the components that are to be replaced,
  - d. a description of the existing and proposed air pollution control equipment,
  - e. an estimate of the fixed capital cost of the replacements, and of constructing a comparable entirely new facility,
  - f. the estimated life of the existing facility after the replacements, and

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<sup>4</sup> *Affected facility* means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 C.F.R. 60.2, effective 7/1/03.

- g. a discussion of any economic or technical limitations the facility may have in complying with 40 C.F.R. 60, after the replacements.
10. **NSPS Subpart A Startup, Shutdown, & Malfunction Requirements.** The Permittee shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of EU IDs F1 and TK1, any malfunctions of associated air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU IDs F1 and TK1, is inoperative.
- [18 AAC 50.040(a)(1), 12/3/05]  
[40 C.F.R. 60.7(b), Subpart A, 7/1/03]
11. **NSPS Subpart A Good Air Pollution Control Practice.** At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate EU IDs F1 and TK1 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The Administrator will determine whether acceptable operating and maintenance procedures are being used based on information available to the Administrator, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance records, and inspections of EU IDs F1 and TK1.
- [18 AAC 50.040(a)(1), 12/3/05]  
[40 C.F.R. 60.11(d), Subpart A, 7/1/03]
12. **NSPS Subpart A Credible Evidence.** For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of the standards set forth in condition 15, nothing in 40 C.F.R. Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether EU IDs F1 and TK1 would have been in compliance with applicable requirements of 40 C.F.R. Part 60 if the appropriate performance or compliance test or procedure had been performed.
- [18 AAC 50.040(a)(1), 12/3/05]  
[40 C.F.R. 60.11(g), Subpart A, 7/1/03]
13. **NSPS Subpart A Concealment of Emissions.** The Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of a standard set forth in condition 15. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged to the atmosphere.
- [18 AAC 50.040(a)(1), 12/3/05]  
[40 C.F.R. 60.12, Subpart A, 7/1/03]  
[40 C.F.R. 60.13(h), Subpart A, 7/1/03]

### Control Device Requirements

14. **Flare F1.** The Permittee shall design, operate, and monitor Flare F1 to comply with 40 C.F.R. 60.18(c)(1), (c)(2), (c)(3), (c)(5), and (c)(6); 60.18(d); 60.18(e); and 60.18(f)(1), (f)(2), (f)(3), (f)(4), and (f)(6).

[40 C.F.R. 60.112b(a)(3)(ii) and 60.113b(d), 7/1/99]

- 14.1 Permittee shall maintain records of all periods of operation during which the flare pilot flame is absent per 40 C. F. R. 60.18(c)(2) and shall report any flame out in accordance with Condition 53.

[18 AAC 50.040(a)(1) & (a)(2)(M), and 18 AAC 50.350(g)-(i), 6/21/98]  
[40 C.F.R. 60.115b(d)(2) & (3), 7/1/99]

- 14.2 The Permittee shall keep records showing the heating value of any gas or vapor vented to the flare. The heating value (LHV) is obtained in accordance with Condition 14.3.

[18 AAC 50.040(a)(1) & (a)(2)(M), and 18 AAC 50.350(g)-(i), 6/21/98]  
[40 C.F.R. 60.18(c)(3), 7/1/99]

- 14.3 Report in accordance with Condition 39 when the heating value of the gas to be combusted is less than 300 Btu/scf.

[18 AAC 50.350(g) - (i), 1/18/99]

- 14.4 The Permittee shall keep records of the initial performance test and any subsequent test(s) requested by the department or by EPA which show the actual velocity. The tests shall be conducted using the EPA, 40 C.F.R. 60, Appendix A, Reference Methods 2, 2A, 2C, 2D or other method approved by EPA.

[18 AAC 50.350(g) - (i), 1/18/99]

- 14.5 Report in accordance with Condition 53 when the actual velocity obtained as a result of tests conducted per Condition 14.4 above exceeds the maximum permitted velocity determined in accordance with 40 C.F.R. 60.18(f)(6).

[18 AAC 50.040(a)(1), (a)(2)(BB), (a)(2)(Z), (b)(1) and (2)(B) and (C), and 18 AAC 50.350(g)-(I), 6/21/98]  
[Federal Citation: 40 C.F.R. 60.18, 7/1/99]

### **Petroleum Refineries Subject to NSPS Subpart J**

15. **NSPS Subpart J SO<sub>2</sub> Emission Standards.** The Permittee shall not cause or allow the refinery fuel gas burned in EU ID F1 to exceed a SO<sub>2</sub> concentration, averaged over three hours equal to as follows:

[18 AAC 50.040(a)(2)(J), 12/3/05]  
[40 C.F.R. 60.104(a)(1), Subpart J, 7/1/03]

- 15.1 for equipment burning only fuel gas,<sup>5</sup> the concentration of uncontrolled emission that would result from burning fuel gas containing 230 milligrams H<sub>2</sub>S per dscm; or
- 15.2 for equipment that burns a combination of fuel gas and other fuels, a concentration based on the allowable emissions in condition 15.1, prorated by the proportion of fuel gas and other fuels to the total fuel burned in the equipment.

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<sup>5</sup> *Fuel gas* means any gas which is generated at a petroleum refinery and which is combusted, including natural gas when the natural gas is combined and combusted in any proportion with a gas generated at a petroleum refinery, as defined in 40 C.F.R. 60.101(d) effective 7/1/03.

- a. The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from the requirements of this condition.

15.3 Monitoring - The Permittee shall monitor the SO<sub>2</sub> emission standard in condition 15 by:

[40 C.F.R. 60.105, Subpart J, 7/1/03]

- a. In place of the SO<sub>2</sub> monitor in 40 CFR 60.105(a)(3), an instrument for continuously monitoring and recording the concentration (dry basis) of H<sub>2</sub>S in fuel gases before being burned in any fuel gas combustion device.
  - (i) The span value for this instrument is 425 mg/dscm H<sub>2</sub>S.
  - (ii) Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H<sub>2</sub>S in the fuel gas being burned.
  - (iii) The performance evaluations for this H<sub>2</sub>S monitor under §60.13(c) shall use Performance Specification 7. Method 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations.

[40 C.F.R. 60.105(a)(4), 7/8/04]

15.4 Recordkeeping and Reporting - The Permittee shall:

[40 C.F.R. 60.105, Subpart J, 7/1/03]

- a. For the purpose of reports under 40 CFR 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows:

Note: All averages, except for opacity, shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

- (i) Sulfur dioxide from fuel gas combustion.
  - (A) All rolling 3-hour periods during which the average concentration of H<sub>2</sub>S as measured by the H<sub>2</sub>S continuous monitoring system under §60.105(a)(4) exceeds 230 mg/dscm (0.10 gr/dscf).
- b. The owner or operator of an affected facility shall submit the reports required under this subpart to the Administrator semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period.
- c. The owner or operator of the affected facility shall submit a signed statement certifying the accuracy and completeness of the information contained in the report.

[40 C.F.R. 60.105(a)(4), 7/8/04]

**16. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report.**

Except as provided for in condition 17, the Permittee shall submit to the department and to EPA a written "excess emissions and monitoring systems performance report" (EEMSP)<sup>6</sup> any time a limit in condition 15, has been exceeded, as described in this condition. The Permittee shall submit the EEMSP reports to EPA quarterly, postmarked no later than 30 days after the end of the last calendar quarter.

[18 AAC 50.040(a)(1), 12/3/05]  
[40 C.F.R. 60.7(c), Subpart A, 7/1/03]

**16.1** The magnitude of excess emissions computed in accordance with condition 14.5, any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.

[40 C.F.R. 60.7(c)(1), Subpart A, 7/1/03]

**16.2** Identification of each period of excess emissions that occurred during startup, shutdown, and malfunction of EU ID F1, the nature and cause of any malfunction, and the corrective action taken or preventative measures adopted.

[40 C.F.R. 60.7(c)(2), Subpart A, 7/1/03]

**16.3** The date and time identifying each period during which a Continuous Monitoring System (CMS) was inoperative except for zero and span checks and the nature of any repairs or adjustments.

[40 C.F.R. 60.7(c)(3), Subpart A, 7/1/03]

**16.4** A statement indicating whether or not any excess emissions occurred or the CMS was inoperative, repaired, or adjusted, at any time during the reporting period.

[40 C.F.R. 60.7(c)(4), Subpart A, 7/1/03]

**17. NSPS Subpart A Summary Report Form.** The Permittee shall submit to the department and to EPA one "summary report form"<sup>7</sup> in the format shown in Figure 1 of 40 C.F.R. 60.7 for each pollutant monitored for EU ID F1 as follows:

[18 AAC 50.040(a)(1), 12/3/05]  
[40 C.F.R. 60.7(d), Subpart A, 7/1/03]

**17.1** If the total duration of excess emissions for the reporting period is less than one percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than five percent of the total operating time for the reporting period, submit a summary report form **instead of** the EEMSP report described in condition 16, otherwise

[40 C.F.R. 60.7(d)(1), Subpart A, 7/1/03]

**17.2** Submit a summary report form **along with** the EEMSP described in condition 16.

[40 C.F.R. 60.7(d)(2), Subpart A, 7/1/03]

<sup>6</sup> The federal EEMSP report is not the same as the State excess emission report required by condition 53.

<sup>7</sup> See Summary Report form in Attachment A of the Statement of Basis.



## **Volatile Organic Liquid Storage Vessels (Tanks) Subject to NSPS Subpart Kb**

### **18. NSPS Subpart Kb Requirements:**

[18 AAC 50.040(a)(2)(M), 12/3/05]  
[40 C.F.R. 60.112b, Subpart Kb, 7/1/03]

18.1 For EU ID TK1, storage vessels meeting the design requirements specified in 40 C.F.R. 60.112b(a), the Permittee shall equip each with a closed vent system and control device, as described in 40 C.F.R. 60.112b(a)(3).

[40 C.F.R. 60.112b(a), Subpart Kb, 7/1/03]

- a. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, §60.485(b).
- b. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.
- c. **Standards: General** - Each owner or operator subject to the provisions of 40 CFR 60, Subpart VV shall demonstrate compliance with the requirements of §§60.482-1 through 60.482-10 or §60.480(e) for all equipment within 180 days of initial startup. Compliance with §§60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in §60.485.  
[40 CFR 60.482-1, Subpart VV, 11/16/07]
- d. **Standards: Closed vent systems and control devices** - Owners or operators of closed vent systems and control devices used to comply with provisions of 40 CFR 60, Subpart VV shall comply with the provisions of this section as follows:
  - (i) Flares used to comply with this subpart shall comply with the requirements of §60.18.
  - (ii) Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.  
[40 CFR 60.482-10, Subpart VV, 12/14/00]
- e. **Test methods and procedures** - The owner or operator shall determine compliance with the standards in §§60.482-1 through 60.482-10, 60.483, and 60.484 as follows:

- (i) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:
  - (A) Zero air (less than 10 ppm of hydrocarbon in air); and
  - (B) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.
- (ii) The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482–10(e) as follows:
  - (A) The requirements of 40 CFR 60.485(b) shall apply.
  - (B) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

[40 CFR 60.485, Subpart VV, 11/15/07]

## 18.2 Recordkeeping –

- a. For the life of the storage vessel EU ID TK1, the Permittee shall keep readily accessible records showing the dimensions and an analysis showing the capacity of the storage vessel.

[40 C.F.R. 60.110b(a) & (b) and 60.116b(a) & (b), Subpart Kb, 10/15/03]

- b. For EU ID TK1 equipped with closed vent system and flare to comply with 40 C.F.R. 60.112b, records shall be kept of all periods of operation during which the flare pilot flame is absent.

[40 C.F.R. 60.113b, 60.115b(a) – (d) & 60.116b(a) - (c) & (e)(2)(ii), Subpart Kb, 7/1/03]

## 18.3 Reporting –

- a. For EU ID TK1 equipped with closed vent system and flare to comply with 40 C.F.R. 60.112b, the Permittee shall submit to the Department semiannual reports of all periods recorded under condition 18.2b.
- b. For EU ID F1, used to comply with 40 CFR 60, Subpart Kb:
  - (i) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

- (ii) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.
- (iii) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

[40 C.F.R. 60.113b, 60.115b(a), (b) & (d), and 60.116b(d), Subpart Kb, 7/1/03]

## Method 22 Requirements for Flare F1

**18.4 Monitoring – Visible Emissions** - Momentarily observe the exhaust from Flare F1 each operating day during operation for indications of visible emissions (VE). Keep a log of the observations in accordance with Condition 18.7 below. Each day's observations may be made via remote video camera monitoring from the control room if an operator cannot see the flare's exhaust through a window or does not go outside so they can make direct observations.

- a. Initial Monitoring Frequency: Observe the exhaust during each calendar day that Flare F1 operates.
- b. Reduced Monitoring Frequency: After Flare F1 has been observed on 30 operating days, if during normal operations the source operated without visible emissions in the exhaust for those 30 days, then observe the exhaust at least once in every calendar month that Flare F1 operates.

**18.5 Method 22 VE Observations** - Except as provided in Condition 18.5c(ii) below, if visible emissions are observed at any time during Flare F1 normal flaring operations, the Permittee shall conduct a visible emission VE evaluation in accordance with 40 C.F.R. 60 Appendix A, Method 22. The Method 22 VE observation period shall not be less than 2-hours in duration, sufficient to document a violation of 40 C.F.R. 60.18(c)(1). If visible emissions are noted for a total of more than 5 minutes [60.18(C)(1)] during the Method 22 VE observation:

[18 AAC 50.350(g), 1/18/97] [Federal Citation: 40 C.F.R. 60.18(c)(1), 7/1/99]

- a. Initiate corrective actions to eliminate visible emissions from the source within 24 hours of the Method 22 VE observation;
- b. Keep a written record of the starting date, the completion date, and a description of the actions taken to reduce visible emissions; and
- c. After completing the corrective actions:
  - (i) Conduct a VE evaluation in accordance with 40 C.F.R. 60 Appendix A, Method 22. The Method 22 VE observation period shall not be less than 2-hours in duration.

- (ii) If the corrective actions taken under Condition 18.5a above do not reduce visible emissions, to a period of 5 minutes or less during the 2-hour Method 22 VE observation, then conduct opacity measurements in accordance with 40 C.F.R. 60 Appendix A, Method 9 and in accordance with Condition 18.6 below as soon as possible, but within 24 hours to assess compliance with Condition 18. The 24-hour time limit to conduct opacity measurements may be extended by the department for sufficient cause.

- d. Visible emissions observed during startup, shutdown or malfunction shall not be considered a violation of 40 C.F.R. 60.18(c)(1).

[18 AAC 50.350(h), 1/18/97] [Federal Citation: 40 C.F.R. 60.11(c), 7/1/99]

**18.6 Method 9 Opacity Observations** - If visible emissions are noted during the observations of Condition 18.4 above observe the exhaust from Flare F1, following 40 C.F.R. 60 Appendix A, Method 9, for 18 minutes to obtain 72 consecutive 15-second opacity observations. The Method 9 procedures are used to determine compliance with the opacity standards of Condition 18. Unless corrective actions are occurring, the Method 9 readings must be started as soon as possible, but within 24 hours to assess compliance with Condition 18. The 24-hour time clock is stopped only while corrective actions are occurring. The 24-hour time limit to conduct opacity measurements may be extended by the department for sufficient cause.

**18.7 Flare F1 Recordkeeping** - For observations of visible emissions per Condition 18.4 and for any Method 22 observations per Condition 18.5 above, record the following information in a written log for each observation of Flare F1:

- a. From Table 1, the ID of the source observed;
- b. The date, time, and duration of the observation;
- c. For observations conducted per:
  - (i) Condition 18.4, whether visible emissions are present or absent in the exhaust plume, or
  - (ii) Condition 18.5 above, accumulated time visible emissions are present in the exhaust;
- d. A description of the background to the exhaust during the observation;
- e. Name of the person making the observation; and
- f. Keep records in accordance with Condition 18.5b.

**18.8 Recordkeeping** - For EPA 40 C.F.R. 60, Appendix A Method-9 observations:

- a. The observer shall record the name of the facility, emission source and location, facility type, observer's name and affiliation, and the date. Record the time, estimated distance to the emission location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background and operating rate (load or fuel consumption rate) on a Visible Emissions Observation Record at the time opacity readings are initiated and completed.
- b. The observer shall record the presence or absence of an attached or detached plume and the approximate distance from the emission outlet to the point in the plume at which the observations are made.
- c. Record opacity observations to the nearest 5 percent at 15-second intervals on a Visible Emissions Observation Record. Record the minimum number of observations required by the permit. Each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period.
- d. To determine the six-minute average opacity, divide the observations recorded on the record sheet into sets of 24 consecutive observations. Sets need not be consecutive in time and in no case shall two sets overlap. For each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24. Record the average opacity on the sheet.

**18.9 Reporting – Excess Emissions or Permit Deviations** - In accordance with Condition 53 report excess emissions or permit deviations:

- a. The dates and reasons for failure to conduct monitoring or recordkeeping per Conditions 18.4 through 18.8 above.
- b. When the flare's exhaust is visible for more than a total of five (5) minutes during any two (2) consecutive hours, except if the emissions are observed during startup, shutdown or malfunction.

[18 AAC 50.350(i), 1/18/97] [Federal Citation: 40 C.F.R. 60.11(c), 7/1/99]

- c. When the average on any consecutive 24 Method 9 observations exceed 20 percent opacity. Operation during Startup, shutdown or malfunction is not considered exempt from the department's opacity limits.
- d. Submit to the department copies of the records required by Condition 18.7a above through 18.7e above with the report required by Condition 18.10.

**18.10 Facility Operating Report** - Submit with the facility operating report required under Condition 54 copies of records required under Conditions 18.5b, 18.7 through 18.8d, and 18.9a through 18.9c above;

[18 AAC 50.050(a)(2), 18 AAC 50.055(a)(1), 1/18/97; 18 AAC 50.350(d), 6/21/98; 18 AAC 50.345/346, 5/3/02, & 18 AAC 50.350(h) – (i), 1/18/97]

- a. For each source where Method 9 opacity readings are taken;
  - (i) Copies of the observation results (i.e. VE and opacity readings) for each source; and
  - (ii) A summary to include:
    - (A) The dates and type of observations conducted;
    - (B) The highest six minute average observed; and
    - (C) Dates when Condition 4 is violated.
- b. The number of days that VE observations per Condition 18.4 were made, and the dates, if any, that a Method 22 VE per Condition 18.5 was observed.

**Emission Units/Stationary Sources Subject to Federal National Emission Standards for Hazardous Air Pollutants (HAPs) (EU IDs TK1 – TK4)**

**19. NESHAP Subpart FF Benzene Waste Operations.**

19.1 **Standards.** The Permittee of a facility at which the total annual benzene quantity from facility waste is less than 10 megagrams per year (Mg/yr) (11 ton/yr) shall be exempt from the requirements of 40 CFR 60.342(b) and (c). The total annual benzene quantity from facility waste is the sum of the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than 10 percent or that is mixed with water, or other wastes, at any time and the mixture has an annual average water content greater than 10 percent. The benzene quantity in a waste stream is to be counted only once without multiple counting if other waste streams are mixed with or generated from the original waste stream. Other specific requirements for calculating the total annual benzene waste quantity are as follows:

- a. Wastes that are exempted from control under 40 CFR 61.342(c)(2) and 40 CFR 61.342(c)(3) are included in the calculation of the total annual benzene quantity if they have an annual average water content greater than 10 percent, or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than 10 percent.
- b. The benzene in a material subject to this subpart that is sold is included in the calculation of the total annual benzene quantity if the material has an annual average water content greater than 10 percent.

- c. Benzene in wastes generated by remediation activities conducted at the facility, such as the excavation of contaminated soil, pumping and treatment of groundwater, and the recovery of product from soil or groundwater, are not included in the calculation of total annual benzene quantity for that facility. If the facility's total annual benzene quantity is 10 Mg/yr (11 ton/yr) or more, wastes generated by remediation activities are subject to the requirements of paragraphs (c) through (h) of this section. If the facility is managing remediation waste generated offsite, the benzene in this waste shall be included in the calculation of total annual benzene quantity in facility waste, if the waste streams have an annual average water content greater than 10 percent, or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than 10 percent.
- d. The total annual benzene quantity is determined based upon the quantity of benzene in the waste before any waste treatment occurs to remove the benzene except as specified in 40 CFR 61.355(c)(1)(i)(A) through (C).

[18 AAC 50.040(b)(2)(e), 7/25/08]

[40 C.F.R. 61.342(a), 7/1/04]

**19.2 Recordkeeping.** The Permittee of a facility subject to the provisions of 40 CFR 61, Subpart FF shall comply with the following recordkeeping requirements:

- a. Each record shall be maintained in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified.
- b. Each owner or operator shall maintain records that identify each waste stream at the facility subject to this subpart, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with this subpart. In addition the owner or operator shall maintain the following records:
- c. For each waste stream not controlled for benzene emissions in accordance with this subpart, the records shall include all test results, measurements, calculations, and other documentation used to determine the following information for the waste stream: waste stream identification, water content, whether or not the waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity.

[Federal Citation: 40 C.F.R. 61.356(a), (b)(1), 7/1/07]

**19.3 Reporting Requirements.** If the total annual benzene quantity from facility waste is less than 1 Mg/yr (1.1 ton/yr), then the Permittee shall submit to the Administrator a report that updates the information listed in 40 CFR 61.357(a)(1) through (a)(3) whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr (1.1 ton/yr) or more.

[Federal Citation: 40 C.F.R. 61.357(b), 7/1/04]

## ***Section 5. General Conditions***

### **Standard Terms and Conditions**

20. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.  
[18 AAC 50.326(j)(3), 10/1/04 & 50.345(a) & (e), 5/03/02]
21. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and re-issuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.  
[18 AAC 50.326(j)(3), 10/1/04 & 50.345(a) & (f), 5/03/02]
22. The permit does not convey any property rights of any sort, nor any exclusive privilege.  
[18 AAC 50.326(j)(3), 10/1/04 & 50.345(a) & (g), 5/03/02]
23. **Administration Fees.** The Permittee shall pay to the Department all assessed permit administration fees. Administration fee rates are set out in 18 AAC 50.400-405.  
[18 AAC 50.326(j)(1), 18 AAC 50.400-405, 1/29/05, AS 37.10.052(b), 2000, AS 46.14.240 6/7/03]
24. **Assessable Emissions.** The Permittee shall pay to the Department an annual emission fee based on the stationary source's assessable emissions as determined by the Department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410(b). The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit in quantities greater than 10 tons per year. The quantity for which fees will be assessed is the lesser of
- 24.1 the stationary source's assessable potential to emit of 67 TPY; or
- 24.2 the stationary source's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon actual annual emissions emitted during the most recent calendar year or another 12-month period approved in writing by the Department, when demonstrated by
- a. an enforceable test method described in 18 AAC 50.220;
  - b. material balance calculations;
  - c. emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035; or
  - d. other methods and calculations approved by the Department.
- [18 AAC 50.040(j)(3) 12/3/05, 18 AAC 50.326(j)(1), & 50.346(b)(1), 10/1/04 and]  
[18 AAC 50.410 – 50.420, 01/30/05]  
[40 C.F.R. 71.5(c)(3)(ii), 7/1/04]



**25. Assessable Emission Estimates.** Emission fees will be assessed as follows:

25.1 no later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., Juneau, AK 99801-1795; the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or

25.2 if no estimate is received on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set forth in condition 24.1.

[18 AAC 50.040(j)(3), 12/3/05, 18 AAC 50.326(j)(1), 12/1/04 & 18AAC 50.346(b)(1), 10/1/04 and 50.410 – 50.420, 01/29/05]  
[40 C.F.R. 71.5(c)(3)(ii), 7/1/04]

**26. Good Air Pollution Control Practice.** The Permittee shall do the following for EU IDs F2, H1, H2, and H4:

- a. perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
- b. keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format; and
- c. keep a copy of either the manufacturer's or the operator's maintenance procedures.

[18 AAC 50.030, 50.326(j)(3), & 50.346(b)(5), 10/1/04]

**27. Dilution.** The Permittee shall not dilute emissions with air to comply with this permit. Monitoring shall consist of an annual certification that the Permittee does not dilute emissions to comply with this permit.

[18 AAC 50.045(a), 1/18/97]

**28. Reasonable Precautions to Prevent Fugitive Dust.** A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air.

[18 AAC 50.045(d), 1/18/97; and 18 AAC 50.040(e), 12/3/05 and 18 AAC 50.326(j)(3), & 50.346(c), 10/1/04]

**28.1** The Permittee shall keep records of

- a. complaints received by the Permittee and complaints received by the Department and conveyed to the Permittee; and
- b. any additional precautions that are taken
  - (i) to address complaints described in condition 28.1 or to address the results of Department inspections that found potential problems; and

- (ii) to prevent future dust problems.

28.2 The Permittee shall report according to condition 30.

29. **Stack Injection.** The Permittee shall not release materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack at a source constructed or modified after November 1, 1982, except as authorized by a construction permit, Title V permit, or air quality control permit issued before October 1, 2004.

[18 AAC 50.055(g), 10/1/04]

30. **Air Pollution Prohibited.** No person may permit any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.

[18 AAC 50.110, 5/26/72; and 18 AAC 50.040(e), 12/3/05 and 18 AAC 50.326(j)(3), & 50.346(a), 10/1/04]  
[40 C.F.R. 71.6(a)(3), 7/1/04]

30.1 Monitoring, Record Keeping, and Reporting for Air Pollution Prohibited

- a. If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to condition 53.
- b. As soon as practicable after becoming aware of a complaint that is attributable to emissions from the stationary source, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of condition 30.

30.2 The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if

- a. after an investigation because of a complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of condition 30; or
- b. the Department notifies the Permittee that it has found a violation of condition 30.

30.3 The Permittee shall keep records of

- a. the date, time, and nature of all emissions complaints received;
- b. the name of the person or persons that complained, if known;
- c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of condition 30; and
- d. any corrective actions taken or planned for complaints attributable to emissions from the stationary source.

30.4 With each stationary source operating report under condition 54, the Permittee shall include a brief summary report which must include

- a. the number of complaints received;
- b. the number of times the Permittee or the Department found corrective action necessary;
- c. the number of times action was taken on a complaint within 24 hours; and
- d. the status of corrective actions the Permittee or Department found necessary that were not taken within 24 hours.

30.5 The Permittee shall notify the Department of a complaint that is attributable to emissions from the stationary source within 24 hours after receiving the complaint, unless the Permittee has initiated corrective action within 24 hours of receiving the complaint.

31. **Technology-Based Emission Standard.** If an unavoidable emergency, malfunction, or non-routine repair, as defined in 18 AAC 50.235(d), causes emissions in excess of a technology-based emission standard<sup>8</sup> listed in condition 33 (refrigerants), the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under condition 53 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under condition 53.

[18 AAC 50.235(a), 1/18/97 and 18 AAC 50.040(j)(4), 12/3/05 & 18 AAC 50.326(j)(4), 10/1/04]  
[40 C.F.R. 71.6(c)(6), 7/1/04]

32. **Asbestos NESHAP.** The Permittee shall comply with the requirements set forth in 40 C.F.R. 61.145, 61.150, and 61.152 of Subpart M, and the applicable sections set forth in 40 C.F.R. 61, Subpart A and Appendix A.

[18 AAC 50.040(b)(1) & (2)(F), 12/3/05 and 50.326(j), 12/1/04]  
[40 C.F.R. 61, Subparts A & M, and Appendix A, 7/1/03]

33. **Refrigerant Recycling and Disposal.** The Permittee shall comply with the standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F.

[18 AAC 50.040(d), 12/3/05 & 18 AAC 50.326(j), 12/1/04]  
[40 C.F.R. 82, Subpart F, 7/1/03]

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<sup>8</sup> *Technology-based emission standard* means a best available control technology standard (BACT); a lowest achievable emission rate standard (LAER); a maximum achievable control technology standard established under 40 C.F.R. 63, Subpart B, adopted by reference in 18 AAC 50.040(c); a standard adopted by reference in 18 AAC 50.040(a) or (c); and any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

## **NESHAPs Applicability Determinations**

34. The Permittee shall determine rule applicability and designation of affected sources under National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories (40 C.F.R. 63) in accordance with the procedures described in 40 C.F.R.

63.1(b). If a source becomes affected by an applicable subpart of 40 C.F.R. 63, Permittee shall comply with such standard by the compliance date established by the Administrator in the applicable subpart.

- 34.1 The Permittee must keep a record of the applicability determination on site for a period of 5 years after the determination or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the Permittee believes the source is unaffected. The analysis (or other information) must be sufficiently detailed to allow the Department to make a finding about the source's applicability status with regard to the relevant standard or other requirement.

[18 AAC 50.040(c)(1)(A) & (E) & 50.040(j), 12/3/05, 18 AAC 50.326(j), 12/1/04]

[40 C.F.R. 71.6(a)(3)(ii), 7/1/04]

[40 C.F.R. 63.1(b), & 63.6(c)(1), 4/05/02]

## **Halon Prohibitions, 40 C.F.R. 82**

35. The Permittee shall comply with the following prohibitions set out in 40 C.F.R. 82.174 (Protection of Stratospheric Ozone Subpart G – Significant New Alternatives Policy Program).

[18 AAC 50.040(d), 12/3/05]

[40 C.F.R. 82.174 (b) - (d), 7/1/03]

- 35.1 Do not use a substitute which a person knows or has reason to know was manufactured, processed, or imported in violation of the regulations of 40 C.F.R. 82 Subpart G or knows or has reason to know was manufactured, processed, or imported in violation of any use restriction in the acceptability determination, after the effective date of any rulemaking imposing such restrictions.

- 35.2 Do not use a substitute without adhering to any use restrictions set by the acceptability decision, after the effective date of any rulemaking imposing such restrictions.

- 35.3 Do not use a substitute after the effective date of any rulemaking adding such substitute to the list of unacceptable substitutes.

36. The Permittee shall comply with the following prohibitions set out in 40 C.F.R. 82.270.

[18 AAC 50.040(d), 12/3/05]

[40 C.F.R. 82.270 (b)-(f), 7/1/03]

- 36.1 No person testing, maintaining, servicing, repairing, or disposing of halon-containing equipment or using such equipment for technician training may knowingly vent or otherwise release into the environment any halons used in such equipment, as follows:

- 36.2 De minimis<sup>9</sup> releases associated with good faith attempts to recycle or recover halon are not subject to this prohibition.
- 36.3 Release of residual halon contained in fully discharged total flooding fire extinguishing systems would be considered a de minimis release associated with good faith attempts to recycle or recover halon.
- 36.4 Release of halons during testing of fire extinguishing systems is not subject to this prohibition if the following four conditions are met:
- a. systems or equipment employing suitable alternative fire extinguishing agents are not available;
  - b. system or equipment testing requiring release of extinguishing agent is essential to demonstrate system or equipment functionality;
  - c. failure of the system or equipment would pose great risk to human safety or the environment; and
    - (i) a simulant agent cannot be used in place of the halon during system or equipment testing for technical reasons.
  - d. Releases of halons associated with research and development of halon alternatives, and releases of halons necessary during analytical determination of halon purity using established laboratory practices are exempt from this prohibition.
  - e. This prohibition does not apply to qualification and development testing during the design and development process of halon-containing systems or equipment when such tests are essential to demonstrate system or equipment functionality and when a suitable simulant agent cannot be used in place of the halon for technical reasons.
  - f. This prohibition does not apply to the emergency release of halons for the legitimate purpose of fire extinguishing, explosion inertion, or other emergency applications for which the equipment or systems were designed.
- 36.5 Organizations that employ technicians who test, maintain, service, repair or dispose of halon-containing equipment shall take appropriate steps to ensure that technicians hired on or before April 6, 1998 will be trained regarding halon emissions reduction by September 1, 1998. Technicians hired after April 6, 1998 shall be trained regarding halon emissions reduction within 30 days of hiring, or by September 1, 1998, whichever is later.

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<sup>9</sup> Legal term meaning "of minimum importance."

- 36.6 No person shall dispose of halon- containing equipment except by sending it for halon recovery to a manufacturer operating in accordance with NFPA<sup>10</sup> 10 and NFPA 12A standards, a fire equipment dealer operating in accordance with NFPA 10 and NFPA 12A standards or a recycler operating in accordance with NFPA 10 and NFPA 12A standards. This provision does not apply to ancillary system devices such as electrical detection control components which are not necessary to the safe and secure containment of the halon within the equipment, to fully discharged total flooding systems, or to equipment containing only de minimis quantities of halons.
- 36.7 No person shall dispose of halon except by sending it for recycling to a recycler operating in accordance with NFPA 10 and NFPA 12A standards, or by arranging for its destruction using one of the following controlled processes:
- a. Liquid injection incineration;
  - b. Reactor cracking;
  - c. Gaseous/fume oxidation;
  - d. Rotary kiln incineration;
  - e. Cement kiln;
  - f. Radio frequency plasma destruction; or
  - g. An EPA-approved destruction technology that achieves a destruction efficiency of 98 percent or greater.
- 36.8 No owner of halon-containing equipment shall allow halon release to occur as a result of failure to maintain such equipment.

### **Open Burning Requirements**

37. **Open Burning.** The Permittee shall comply with the following requirements when conducting open burning at the stationary source.
- 37.1 **General Requirements.** A person conducting open burning shall comply with the limitations of conditions 37.2 - 37.6 and shall ensure that
- a. the material is kept as dry as possible through the use of a cover or dry storage;
  - b. before igniting the burn, non-combustibles are separated to the greatest extent practicable;
  - c. natural or artificially induced draft is present;

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<sup>10</sup> National Fire Protection Association

- d. to the greatest extent practicable, combustibles are separated from grass or peat layer;
- e. combustibles are not allowed to smolder; and
- f. sufficient written records are kept to demonstrate that the Permittee complies with the limitations in this condition. Upon request of the Department, submit copies of the records.

37.2 **Black Smoke Prohibited.** Open burning of asphalts, rubber products, plastics, tars, oils, oily wastes, contaminated oil cleanup materials, or other materials in a way that gives off black smoke is prohibited without written Department approval. Department approval of open burning as an oil spill response countermeasure is subject to the Department's *In Situ Burning Guidelines for Alaska*, adopted by reference in 18 AAC 50.035. Open burning approved under this subsection is subject to the following limitations:

- a. Open burning of liquid hydrocarbons produced during oil or gas well flow tests may occur only when there are no practical means available to recycle, reuse, or dispose of the fluids in a more environmentally acceptable manner;
- b. The person who conducts open burning shall establish reasonable procedures to minimize adverse environmental effects and limit the amount of smoke generated; and
- c. The Department will, in its discretion, as a condition of approval issued under this subsection, require public notice as described in condition 37.7.

37.3 **Toxic and Acid Gases and Particulate Matter Prohibited.** Open burning or incineration of pesticides, halogenated organic compounds, cyanic compounds, or polyurethane products in a way that gives off toxic or acidic gases or particulate matter is prohibited.

37.4 **Adverse Effects Prohibited.** Open burning of putrescible garbage, animal carcasses, or petroleum-based materials, including materials contaminated with petroleum or petroleum derivatives, is prohibited if it causes odor or black smoke that has an adverse effect on nearby persons or property.

37.5 **Air Quality Advisory.** Open burning is prohibited in an area if the Department declares an air quality advisory under 18 AAC 50.245, stating that burning is not permitted in that area for that day.

37.6 **Wood Smoke Control Areas.** Open burning is prohibited between November 1 and March 31 in a wood smoke control area identified in 18 AAC 50.025(b).

37.7 **Public Notice.** A person required to provide public notice of open burning shall issue the notice through local news media or by other appropriate means if the area of the open burning does not have local news media. The public notice must be issued as directed by the Department and must

- a. state the name of the person conducting the burn;
- b. provide a list of material to be burned;
- c. provide a telephone number to contact the person conducting the burn before and during the burn;
- d. for a surprise fire drill, state
  - (i) the address or location of the training; and
  - (ii) the beginning and ending dates of the period during which a surprise fire drill may be conducted (this period may not exceed 30 days); and
- e. for open burning other than a surprise fire drill, state the expected time, date, and location of the open burning.

37.8 **Complaints.** A person required to provide public notice of open burning shall

- a. make a reasonable effort to respond to complaints received about the burn;
- b. keep, for at least 30 days, a record of all complaints received about the burn, including to the extent feasible
  - (i) the name, address, and telephone number of each person who complained;
  - (ii) a short summary of each complaint; and
  - (iii) any action the person conducting the open burning took to respond to each complaint; and
- c. upon request, provide the Department with a copy of the records kept under 37.8b.

[18 AAC 50.065, 1/18/97; and 18 AAC 50.040(j), 12/3/05 and 18 AAC 50.326(j), 12/1/04]  
[40 C.F.R. 71.6(a) (3), 7/1/04]

38. **Source Aggregation** - The Permittee shall aggregate potential emissions from Source ID(s) 1 through 19 from the Prudhoe Bay Operations Center and Main Construction Camp for the purpose of determining classification under 18 AAC 50.325 and Legal Basis with the modification requirements of 18 AAC 50.300(h)(3).

[18 AAC 50.990(37), 1/18/97]  
[18 AAC 50.910, 1/18/97]



## ***Section 6. General Source Testing and Monitoring Requirements***

39. **Requested Source Tests.** In addition to any source testing explicitly required by the permit, the Permittee shall conduct source testing as requested by the Department to determine compliance with applicable permit requirements.

[18 AAC 50.220(a), 1/18/97 & 18 AAC 50.345(a) & (k), 5/03/02]

40. **Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing

[18 AAC 50.220(b), 1/18/97]

40.1 at a point or points that characterize the actual discharge into the ambient air; and

40.2 at the maximum rated burning or operating capacity of the source or another rate determined by the Department to characterize the actual discharge into the ambient air.

41. **Reference Test Methods.** The Permittee shall use the following as reference test methods when conducting source testing for compliance with this permit:

- 41.1 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60.

[18 AAC 50.220(c)(1)(A), 1/18/97 & 18 AAC 50.040(a), 12/3/05]  
[40 C.F.R. 60, 7/1/03]

- 41.2 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 61.

[18 AAC 50.040(b), 12/3/05 & 18 AAC 50.220(c)(1)(B), 1/18/97]  
[40 C.F.R. 61, 7/1/03]

- 41.3 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the source test methods and procedures specified in 40 C.F.R. 63.

[18 AAC 50.040(c), 12/3/05, 18 AAC 50.220(c)(1)(C), 1/18/97]  
[40 C.F.R. 63, 2/03/04]

- 41.4 Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference Method 9 and may use the form in Section 11 to record data.

[18 AAC 50.030, 5/03/02, 18 AAC 50.220(c)(1)(D), 1/18/97]

- 41.5 Source testing for emissions of total particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60, Appendix A.

[18 AAC 50.040(a)(3), 12/3/05, 18 AAC 50.220(c)(1)(E), 1/18/97]  
[40 C.F.R. 60, Appendix A, 7/8/04]

- 41.6 Source testing for emissions of PM-10 must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Methods 201 or 201A and 202.

[18 AAC 50.035(b)(2), 10/1/04; and 50.220(c)(1)(F), 1/18/97]  
[40 C.F.R. 51, Appendix M, 7/01/03]

- 41.7 Source testing for emissions of any pollutant may be determined using an alternative method approved by the department in accordance with 40 C.F.R. 63 Appendix A, Method 301.

[18 AAC 50.040(c)(24), 12/3/05 & 50.220(c)(2), 1/18/97]  
[40 C.F.R. 63, Appendix A, Method 301, 2/03/04]

42. **Excess Air Requirements.** To determine compliance with this permit, standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific source type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).

[18 AAC 50.220(c)(3), 1/18/97 & 50.990(102), 10/1/04]

43. **Test Exemption.** The Permittee is not required to comply with conditions 45, 46 and 47 when the exhaust is observed for visible emissions by Method 9 Plan.

[18 AAC 50.345(a), 5/03/02]

44. **Test Deadline Extension.** The Permittee may request an extension to a source test deadline established by the Department. The Permittee may delay a source test beyond the original deadline only if the extension is approved in writing by the Department's appropriate division director or designee.

[18 AAC 50.345(a) & (l), 5/03/02]

45. **Test Plans.** Except as provided in condition 43, before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance and must specify how the source will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under condition 39 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be done without resubmitting the plan.

[18 AAC 50.345(a) & (m), 5/03/02]

46. **Test Notification.** Except as provided in condition 43, at least 10 days before conducting a source test, the Permittee shall give the Department written notice of the date and the time the source test will begin.

[18 AAC 50.345(a) & (n), 5/03/02]

47. **Test Reports.** Except as provided in condition 43, within 60 days after completing a source test, the Permittee shall submit two copies of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. The Permittee shall additionally certify the results in the manner set out in condition 50. If requested in writing by the Department, the Permittee must provide preliminary results in a shorter period of time specified by the Department.

[18 AAC 50.345(a) & (o), 5/03/02]

48. **Particulate Matter Calculations.** In source testing for compliance with the particulate matter standards in conditions 3 and 7, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220(f), 1/18/97]

## ***Section 7. General Recordkeeping and Reporting Requirements***

### **Recordkeeping Requirements**

49. **Recordkeeping Requirements.** The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:

[18 AAC 50.326(j), 12/1/04]  
[40 C.F.R 60.7(f), Subpart A, 7/8/04 and 71.6(a)(3)(ii)(B), 7/1/04]

- 49.1 copies of all reports and certifications submitted pursuant to this section of the permit; and
- 49.2 records of all monitoring required by this permit, and information about the monitoring including:
- a. the date, place, and time of sampling or measurements;
  - b. the date(s) analyses were performed;
  - c. the company or entity that performed the analyses;
  - d. the analytical techniques or methods used;
  - e. the results of such analyses; and,
  - f. the operating conditions as existing at the time of sampling or measurement.

### **Reporting Requirements**

50. **Certification.** The Permittee shall certify all reports, compliance certifications, or other documents submitted to the Department and required under the permit by including the signature of a responsible official for the permitted stationary source following the statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete." Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal.

- 50.1 The Department may accept an electronic signature on an electronic application or other electronic record required by the Department if
- a. a certifying authority registered under AS 09.25.510 verifies that the electronic signature is authentic; and
  - b. the person providing the electronic signature has made an agreement, with the certifying authority described in 50.1a, that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature,

[18 AAC 50.345(a) & (j), 5/3/02; 18 AAC 50.205 & 50.326(j), 12/1/04]

[40 C.F.R. 71.6(a)(3)(iii)(A), 7/1/04]

51. **Submittals.** Unless otherwise directed by the Department or this permit, the Permittee shall send two copies of reports, compliance certifications, and other submittals required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with condition 50.

[18 AAC 50.326(j), 12/1/04]

[40 C.F.R. 71.6(a)(3)(iii)(A), 7/1/04]

52. **Information Requests.** The Permittee shall furnish to the Department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by the permit. The Department may require the Permittee to furnish copies of those records directly to the federal administrator.

[18 AAC 50.345(a) & (i), 5/3/02; 18 AAC 50.200, and 50.326(a) & (j), 10/1/04]

[40 C.F.R. 71.5(a)(2) & 71.6(a)(3), 7/1/04]

53. **Excess Emissions and Permit Deviation Reports.**

[18 AAC 50.235(a)(2), 50.240(c), 50.326(j)(3), and 50.346(b)(2) & (3), 10/1/04]

- 53.1 Except as provided in condition 30, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:
- a. in accordance with 18 AAC 50.240(c), as soon as possible after the event commenced or is discovered, report
    - (i) emissions that present a potential threat to human health or safety; and
    - (ii) excess emissions that the Permittee believes to be unavoidable;
  - b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that causes emissions in excess of a technology based emission standard;
  - c. report all other excess emissions and permit deviations
    - (i) within 30 days of the end of the month in which the emissions or deviation occurs, except as provided in condition 53.1c(ii);
    - (ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under condition 53.1c(i); and

(iii) for failure to monitor, as required in other applicable conditions of this permit.

53.2 The Permittee must report using either the Department's on-line form, which can be found at <http://www.dec.state.ak.us/air/ap/docs/adby/4notform.pdf>, or if the Permittee prefers, the form contained in Section 13 of this permit. The Permittee must provide all information called for by the form that is used.

53.3 If requested by the Department, the Permittee shall provide a more detailed written report as requested to follow up an excess emissions report.

54. **Operating Reports.** During the life of this permit, the Permittee shall submit to the Department one original and one copy of an operating report by August 1 for the period January 1 to June 30 of the current year and by February 1 for the period July 1 to December 31 of the previous year.

[18 AAC 50.346(b)(6) & 50.326(j), 12/1/04]  
[40 C.F.R. 71.6(a)(3)(iii)(A), 7/1/04]

54.1 The operating report must include all information required to be in operating reports by other conditions of this permit.

54.2 If excess emissions or permit deviations that occurred during the reporting period are not reported under condition 54.1, either

a. The Permittee shall identify

- (i) the date of the deviation;
- (ii) the equipment involved;
- (iii) the permit condition affected;
- (iv) a description of the excess emissions or permit deviation; and
- (v) any corrective action or preventive measures taken and the date of such actions; or

b. When excess emissions or permit deviations have already been reported under condition 53.1c(ii), the Permittee may cite the date or dates of those reports.

54.3 **Transition from expired to renewed permit.** For the first period of this renewed operating permit, also provide the previous permit's operating report elements covering that partial period immediately preceding the effective date of this renewed permit.

54.4 The operating report must include a listing of emissions monitored under Condition 18.4 above which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. The Permittee shall include in the report;

- a. The date of the emissions;
- b. The equipment involved;
- c. The permit condition affected; and
- d. The monitoring result which triggered the additional monitoring.

[18 AAC 50.350(d)(4), 18 AAC 50.350(f)(3) & 18 AAC 50.350(i), 1/18/97, and 18 AAC 50.346(a)(3), 5/3/02]

55. **Annual Compliance Certification.** Each year by March 31, the Permittee shall compile and submit to the Department one original and one copy of an annual compliance certification report.

55.1 Certify the compliance status of the stationary source over the preceding calendar year consistent with the monitoring required by this permit, as follows:

- a. identify each term or condition set forth in Section 3 through Section 9, that is the basis of the certification;
- b. briefly describe each method used to determine the compliance status;
- c. state whether compliance is intermittent or continuous; and
- d. identify each deviation and take it into account in the compliance certification;

55.2 Transition from expired to renewed permit. For the first period of this renewed operating permit, also provide the previous permit's annual compliance certification report elements covering that partial period immediately preceding the effective date of this renewed permit.

55.3 In addition, submit a copy of the report directly to the EPA-Region 10, Office of Air Quality, M/S OAQ-107, 1200 Sixth Avenue, Seattle, WA 98101.

[18 AAC 50.205 & 50.326(j), 12/1/04 & 50.345(a) & (j), 5/03/02]

[40 C.F.R. 71.6(c)(5), 7/1/04]

56. **NSPS and NESHAP Reports.** The Permittee shall:

56.1 attach to the facility operating report required by condition 54, a copy of any NSPS and NESHAPs reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10; and

- 56.2 upon request by the Department, notify and provide a written copy of any EPA-granted waiver of the federal emission standards, record keeping, monitoring, performance testing, or reporting requirements, or approved custom monitoring schedules.

[18 AAC 50.326(j)(4), 12/1/04, 18 AAC 50.040, 12/3/05]



## ***Section 8. Permit Changes and Renewal***

57. **Emissions Trading:** No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit.

[18 AAC 50.040(j)(4), 12/3/05 and 18 AAC 50.326(j), 12/1/04]  
[40 C.F.R. 71.6(a)(8), 7/1/04]

58. **Off Permit Changes.** The Permittee may make changes that are not addressed or prohibited by this permit other than those subject to the requirements of 40 CFR part 72 through 78 or those that are modifications under any provision of title I of the Act to be made without a permit revision, provided that the following requirements are met:

[18 AAC 50.040(j)(4), 12/3/05 and 18 AAC 50.326(j), 12/1/04]  
[40 C.F.R. 71.6(a)(12), 7/1/04]

- 58.1 Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition;
- 58.2 Provide contemporaneous written notice to EPA and the Department of each such change, except for changes that qualify as insignificant under 18 AAC 50.326(d) – (i). Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change;
- 58.3 The change shall not qualify for the shield under 40 CFR 71.6(f);
- 58.4 The Permittee shall keep a record describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
59. **Operational Flexibility.** The Permittee may make changes within the permitted stationary source without requiring a permit revision if the changes are not modifications under any provision of Title I of the Act and the changes do not exceed the emissions allowable under this permit (whether expressed therein as a rate of emissions or in terms of total emissions):
- 59.1 The Permittee shall provide EPA and the Department with a notification no less than 7 days in advance of the proposed change.
- 59.2 For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.
- 59.3 The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to condition 59.

[18 AAC 50.040(j)(4), 12/3/05 and 18 AAC 50.326(j), 12/1/04]

[40 C.F.R. 71.6(a)(13), 7/1/04]

60. **Permit Renewal.** To renew this permit, the Permittee shall submit an application under 18 AAC 50.326 no sooner than **[18 months before]** and no later than **[6 months before the expiration date of this permit]**. **The renewal application shall be complete before the permit expiration date listed on the cover page of this permit.** Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 40 CFR 71.7(b) and 71.5(a)(1)(iii).

[18 AAC 50.040(j)(3), 12/3/05 and 18 AAC 50.326(c)(2) & (j)(2), 10/1/04]  
[40 CFR 71.5(a)(1)(iii) and 71.7(b) & (c)(1)(ii), 7/1/04]

61. **Permit Applications.** The Permittee shall send original applications for modification, or renewal of this permit and application addenda to the Department's Anchorage office<sup>11</sup>. In addition, the Permittee may provide electronic copies of application documents; portable document format (pdf) or MS Word are acceptable formats.

[18 AAC 50.326(j), 12/1/04]  
[40 C.F.R. 71.7(a)(1)(i), 7/1/04]

62. The Permittee shall submit to the US Environmental Protection Agency (EPA) to the same address as in condition 55 (Annual Compliance Certification):

62.1 A copy of any application for modification, or renewal of this permit and application addenda, at the time the application or addendum is submitted to the Department;

62.2 To the extent practicable, the Permittee shall provide to EPA applications in computer-readable format compatible with EPA's national database management system. In the interim until EPA implements such system, portable document format (pdf) or MS Word are acceptable formats.

[18 AAC 50.040(j)(7), 18 AAC 50.326(b), 12/1/04]  
[40 CFR 70.10(d)(1)), 7/1/04]

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<sup>11</sup> The current address for the Anchorage office is: ADEC, 619 East Ship Creek, Suite 249, Anchorage, AK 99501

## ***Section 9. Compliance Requirements***

### **General Compliance Requirements**

63. Compliance with permit terms and conditions is considered to be compliance with those requirements that are

63.1 included and specifically identified in the permit; or

63.2 determined in writing in the permit to be inapplicable.

[18 AAC 50.326(j)(3), 10/1/04 & 50.345(a) & (b), 5/03/02]

64. The Permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14.120(c), 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for

64.1 an enforcement action;

64.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or

64.3 denial of an operating permit renewal application.

[18 AAC 50.326(j)(3), 10/1/04 & 50.345(a) & (c), 5/03/02]

65. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.

[18 AAC 50.326(j)(3), 10/1/04 & 50.345(a) & (d), 5/03/02]

66. The Permittee shall allow the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator to

66.1 enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;

66.2 have access to and copy any records required by the permit;

66.3 inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and

66.4 sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

[18 AAC 50.326(j)(3) and 50.345(a) & (h), 10/1/04]

### **Compliance Schedule**

67. For applicable requirements with which the Crude Oil Topping Unit is in compliance, the Permittee will continue to comply with such requirements.

[18 AAC 50.040(j), 12/3/05 & 18 AAC 50.326(j), 12/1/04]  
[40 CFR 71.6(c)(3) & 71.5(c)(8)(iii)(A)]

68. For applicable requirements that will become effective during the permit term, the Permittee shall meet such requirements on a timely basis.

[18 AAC 50.040(j), 12/3/05 & 18 AAC 50.326(j), 12/1/04]  
[40 CFR 71.6(c)(3) & 71.5(c)(8)(iii)(B)]

### ***Section 10. Permit As Shield from Inapplicable Requirements***

In accordance with AS 46.14.290, and based on information supplied in the stationary source application, this section of the permit contains the requirements determined by the Department not to be applicable to the Crude Oil Topping Unit.

69. Nothing in this permit shall alter or affect the following:

69.1 The provisions of section 303 of the Act (emergency orders), including the authority of the Administrator under that section; or

69.2 The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance.

[18 AAC 50.326(j), 12/1/04]  
[40 C.F.R. 71.6(f)(3)(i) and (ii), 7/1/04]

70. Table B identifies the emission units that are not subject to the specified requirements at the time of permit issuance. If any of the requirements listed in Table B becomes applicable during the permit term, the Permittee shall comply with such requirements on a timely basis including, but not limited to, providing appropriate notification to EPA, obtaining a construction permit and/or an operating permit revision.

[18 AAC 50.326(j), 12/1/04]  
[40 C.F.R. 71.6(f)(1)(ii), 7/1/04]

**Table B - Permit Shields Granted.**

<b>EU ID</b>	<b>Non-applicable Requirements</b>	<b>Reason for Non-applicability</b>
Flare: F2	40 C.F.R. 60 Subpart A - General Provisions §60.18 - General Control Device Requirements	This flare is not a control device used to comply with applicable Subparts of 40 C.F.R. 60 and 40 C.F.R. 61.
Gas-Fired Heaters: H-1 H-2 H-4	40 C.F.R. 60 Subpart D - Standards of Performance for Fossil Fuel-Fired Steam Generators	Heat input capacities below threshold (250 MMBtu/hr); and units not classified as <i>Fossil-Fuel-Fired Steam Generators</i> , as defined in subpart.
	40 C.F.R. 60 Subpart Da - Standards of Performance for Electric Utility Steam Generating Units	Heat input capacities below threshold (250 MMBtu/hr); and units not classified as <i>Electric Utility Steam Generating Units</i> , as defined in subpart.
	40 C.F.R. 60 Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	Heat input capacities below threshold (100 MMBtu/hr); and commenced construction prior to effective date of subpart (June 19, 1984)
Gas-Fired Heater: H-4	40 C.F.R. 60 Subpart Dc	Heat input capacity below threshold (10 MMBtu/hr).

EU ID	Non-applicable Requirements	Reason for Non-applicability
Gas-Fired Heaters: H1, H2, & H4, and Flare: F2	40 C.F.R. 60 Subpart J - Standards of Performance for Petroleum Refineries	These units do not combust "fuel gas" as defined in the subpart [§60.101(d)] and, therefore, do not meet the definition of "fuel gas combustion devices" outlined in §60.101(g).
Flare: F1	40 C.F.R. 60 Subpart J - Standards of Performance for Petroleum Refineries §60.102 - Standard for Particulate Matter §60.103 - Standard for Carbon Monoxide §60.104(a)(2), (b)-(d) - Standards for Sulfur Oxides §60.105(a)(1)-(2) - Monitoring of Emissions and Operations §60.105(a)(5)-(a)(13), (b), (c), (d), (e)(1)-(2), (4) §60.107 - Reporting and Recordkeeping Requirements §60.108 - Performance Test and Compliance Provisions	Standards and requirements apply to fluid catalytic cracking (FCC) unit catalyst regenerators or Claus sulfur recovery plants. Topping unit does not operate FCC unit catalyst regenerators or Claus sulfur recovery plant.
	§60.105(a)(3), (e)(3)(i) - Monitoring of Emissions and Operations	In place of the SO <sub>2</sub> monitor in §60.105(a)(3), fuel gas H <sub>2</sub> S content is monitored continuously, as provided in §60.105(a)(4).
	40 C.F.R. 60 Subpart A §60.7(a)(4) - Notification and Recordkeeping	This requirement only applies to "existing facilities", as defined in 40 C.F.R. 60.2.
Stationary Source-Wide	40 C.F.R. 60 Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries	Commenced construction prior to effective date of subpart (January 4, 1983).
All Storage Tanks TK1, TK2, TK3, & TK4	40 C.F.R. 60 Subpart QQQ - Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems	Commenced construction prior to effective date of subpart (May 4, 1987).
	40 C.F.R. 60 Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids	Commenced construction after effective date of subpart (6/11/73 - 5/19/78).
Storage Tanks: TK2, TK3, & TK4	40 C.F.R. 60 Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids	Commenced construction after effective dates of subpart (5/18/78 - 7/23/84).
	40 C.F.R. 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) §60.112b - Standard for volatile organic compounds (VOC)	Subpart Kb does not apply to vessels with a capacity $\geq 151 \text{ m}^3$ storing a liquid with a maximum true vapor pressure $< 3.5 \text{ kPa}$ (0.5 psia).
	§60.113b - Testing and Procedures	
	§60.114b - Alternative Means of Emission Limitation	

EU ID	Non-applicable Requirements	Reason for Non-applicability
	§60.115b - Reporting and Recordkeeping Requirements	
	§60.116b(c) - (g) - Monitoring of Operations	
Storage Tank: TK1	40 C.F.R. 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) §60.113b(c) - Testing and Procedures (Operating and Maintenance Plan) §60.115b(c) - Reporting and Recordkeeping Requirements	Vessel equipped with a flare control device is exempt from these requirements. Vapors from this tank are vented directly to, and controlled by, the Overhead Gas Flare (F1)
	§60.116b(c) & (d) - Monitoring of Operations	Vessel equipped with a closed vent system and control device meeting the specifications of §60.112b is exempt from monitoring provisions of §60.116b(c) and (d) [ref. §60.116b(g)].
	40 C.F.R. 60 Subpart A §60.7(a)(4) - Notification and Recordkeeping	This requirement only applies to "existing facilities", as defined in 40 C.F.R. 60.2. Tank TK1 is not an existing facility because it was installed in 1987 (after effective date of Subpart Kb);
Flare F1	40 C.F.R. 60 Subpart Kb 40 C.F.R. 60 Subpart A - General Provisions §60.18(c)(4) - General Control Device Requirements: Exit Velocity Requirements for Steam-assisted and Non-assisted Flares	The Overhead Gas flare at the COTU is not steam-assisted or non-assisted. This flare is air assisted.
Stationary Source-Wide	40 C.F.R. 61 Subpart A - General Provisions	Requirements apply only to stationary sources subject to any provision of 40 C.F.R. 61. This stationary source is not subject to 40 C. F. R. 61 Subpart A.
	40 C.F.R. 61 Subpart J - National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene	No process components in <i>benzene service</i> , as defined by subpart (10 percent benzene by weight).
	40 C.F.R. 61 Subpart M - National Emission Standard for Asbestos §61.142 - Standard for Asbestos Mills	Stationary source is not an Asbestos Mill
	§61.143 - Standard for Roadways	Stationary source roadways not exposed to asbestos tailings or asbestos containing waste
	§61.144 - Standard for Manufacturing	Stationary source does not engage in any manufacturing operations using commercial asbestos
	§61.146 - Standard for Spraying	Stationary source does not spray apply asbestos containing materials
	§61.147 - Standard for Fabricating	Stationary source does not engage in any fabricating operations using commercial asbestos

EU ID	Non-applicable Requirements	Reason for Non-applicability
	§61.148 - Standard for Insulating Materials	Stationary source does not install or reinstall, on any stationary source component, insulation material containing commercial asbestos
	§61.149 - Standard for Waste Disposal for Asbestos Mills	Applies only to those stationary sources subject to §61.142 (Asbestos Mills)
	§61.151 - Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Applies only to those stationary sources subject to §§61.142, 61.144, or 61.147 (Asbestos Mills, manufacturing or fabricating)
	§61.152 - Standard for air cleaning	Stationary source does not use air cleaning equipment
	§61.153 - Standard for Reporting	No reporting requirements apply for emission units subject to §61.145 (demolition and renovation) [ref. §61.153(a)]
	§61.154 - Standard for Active Waste Disposal Sites	Stationary source not an active waste disposal site and does not receive asbestos containing waste material
	§61.155 - Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Stationary source does not process regulated asbestos containing material (RACM)
Activities subject to 40 C.F.R. 61 Subpart M - Standard for Demolition and Renovation (§61.145)	40 C.F.R. 61 Subpart A - General Provisions §61.05(a) - Prohibited Activities §61.07 - Application for Approval of Construction or Modification §61.09 - Notification of Startup	Owners or operators of demolition and renovation operations are exempt from the requirements of §§61.05(a), 61.07, and 61.09 [ref. 40 C.F.R. 61.145(a)(5)]
Stationary Source-Wide	§61.10 - Source Reporting and Waiver Request	Demolition and renovation operations exempt from §61.10(a) [ref. 40 C.F.R. 61.153(b)]
	§61.13 - Emission Tests §61.14 - Monitoring Requirements	Emission tests or monitoring is not required under the standards for demolition and renovation [§61.145]
Stationary Source-Wide	40 C.F.R. 61 Subpart V - National Emission Standard for Equipment Leaks (Fugitive Emission Sources)	Stationary source does not operate equipment in volatile hazardous air pollutant (VHAP) service (> 10% VHAP by weight)
Stationary Source-Wide	40 C.F.R. 61 Subpart Y - National Emission Standard for Benzene Emissions from Benzene Storage Vessels	Stationary source does not operate storage vessels in benzene service
Stationary Source-Wide	40 C.F.R. 61 Subpart BB - National Emission Standard for Benzene Emissions from Benzene Transfer Operations	Stationary source does not conduct benzene transfer operations



EU ID	Non-applicable Requirements	Reason for Non-applicability
Stationary Source-Wide	40 C.F.R. 61 Subpart FF - National Emission Standard for Benzene Waste Operations (subparts 61.342 through 61.355).	The total annual benzene quantity from stationary source waste is less than 10 megagrams per year (Mg/yr) as stated in AAI letters dated January 4, 1991 and April 5, 1993. Only the reporting and recordkeeping requirements of §§61.356 and 61.357 apply.
Stationary Source-Wide	40 C.F.R. 63 Subpart A - General Provisions, except §63.1(b).	Requirements only apply to stationary sources subject to any provision of 40 C.F.R. 63. This stationary source is not subject to 40 C.F.R. 63 Subpart A, except for the requirement to determine rule applicability (§63.1(b)).
Stationary Source-Wide	40 C.F.R. 63 Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries	Stationary source is not a major source of hazardous air pollutants; stationary source does not include any petroleum refinery process units because all process units at the stationary source have a SIC code of 1311.
	40 C.F.R. 63 Subpart HH- National Emission Standards for Hazardous Air Pollutants from Oil and Natural gas Production Facilities	The Crude Oil Topping Unit is not a major source of hazardous air pollutants, as defined in 40 C.F.R. 63.760, for which Subpart HH is a relevant standard.
All Storage Tanks	40 C.F.R. 63 Subpart OO - National Emission Standards for Tanks - Level 1	Provisions only apply to tanks affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart OO.
Drain Systems	40 C.F.R. 63 Subpart RR - National Emission Standards for Individual Drain Systems	Provisions only apply to drain systems affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart RR.
All Storage Tanks	40 C.F.R. 63 Subpart SS – National Emission Standards for Closed Vent Systems	Provisions only apply to tanks affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart SS.
Oil-Water Separators	40 C.F.R. 63 Subpart VV - National Emission Standards for Oil-Water Separators and Organic-Water Separators	Provisions only apply to oil-water separators and organic-water separators affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart VV.
Stationary Source-Wide	40 CFR 63, Subpart UUU	This source is not primarily engaged in petroleum refining and is not a petroleum refinery pursuant to 40 CFR 63.1561(a)(1).
Stationary Source-Wide	40 C.F.R. 63 Subpart EEEE – National Emission Standards for Organic Liquid Distribution	The Crude Oil Topping Unit is not a major source of hazardous air pollutants.
Gas-Fired Heaters H-1 , H-2 and H-4 Flares F-1 and F-2 Storage Tanks TK2 –TK4	40 C.F.R. 64 - Compliance Assurance Monitoring	These units do not use a control device to achieve compliance with any emission limitation or standard.

EU ID	Non-applicable Requirements	Reason for Non-applicability
Storage Tank TK1	40 C.F.R. 64 - Compliance Assurance Monitoring	This unit does not have potential pre-control device emissions of an applicable regulated air pollutant equal to or greater than 100 tpy (criteria pollutants), 10 tpy any hazardous air pollutant (HAP), or 25 tpy all HAP combined.
Stationary Source-Wide	40 C.F.R. 68 Accidental Release Prevention Requirements	The only regulated substances present in any process above the threshold quantities are naturally occurring hydrocarbon mixtures. Those are exempt from 40 C.F.R. 68.
Stationary Source-Wide	40 C.F.R. 82.1 Subpart A - Production and Consumption Controls	Stationary source does not produce, transform, destroy, import or export Class I or Group I or II substances or products.
	40 C.F.R. 82.30 Subpart B - Servicing of Motor Vehicle Air Conditioners	Stationary source does not service motor vehicle air conditioners.
	40 C.F.R. 82.60 Subpart C - Ban on Nonessential Products Containing Class I Substances and Ban on Nonessential Products Containing or Manufactured with Class II Substances	Stationary source is not a manufacturer or distributor of Class I and II products or substances.
	40 C.F.R. 82.80 Subpart D - Federal Procurement	Subpart applies only to federal facilities
	40 C.F.R. 82.100 Subpart E - The labeling of products Using Ozone Depleting Substances	Stationary source is not a manufacturer or distributor of Class I or Class II products or substances
	40 C.F.R. 82.158 Subpart F - Recycling and Emissions Reduction	Stationary source does not manufacture or import recovery and recycling equipment
Stationary Source Wide	40 C.F.R. 82.160 - Approved equipment testing organizations	Stationary source does not contract equipment testing organizations to certify recovery and recycling equipment.
	40 C.F.R. 82.164 - Reclaimer certification	Stationary source does not sell reclaimed refrigerant.
	40 C.F.R. 82, Subpart F, Appendix C - Method for Testing Recovery Devices for Use With Small Appliances	Stationary source is not a third party entity that certifies recovery equipment.
	40 C.F.R. 82, Subpart F, Appendix D - Standards for Becoming a Certifying Program for Technicians	Stationary source does not have a technician certification program.
	40 C.F.R. 82.174(a) Subpart G - Significant New Alternatives Policy Program.	Stationary source does not manufacture substitute chemicals or products for ozone-depleting compounds.
	40 C.F.R. 82.270(a), Subpart H- Halon Emissions Reduction.	Stationary source does not manufacture halon.
	18 AAC 50.055(d) - Petroleum Refinery Emissions	Emission units were constructed and/or last modified before November 1, 1982.

## Section 11. Visible Emissions Forms

### Visible Emissions Field Data Sheet

Certified Observer: \_\_\_\_\_

Company &  
Stationary  
Source: \_\_\_\_\_

Location: \_\_\_\_\_

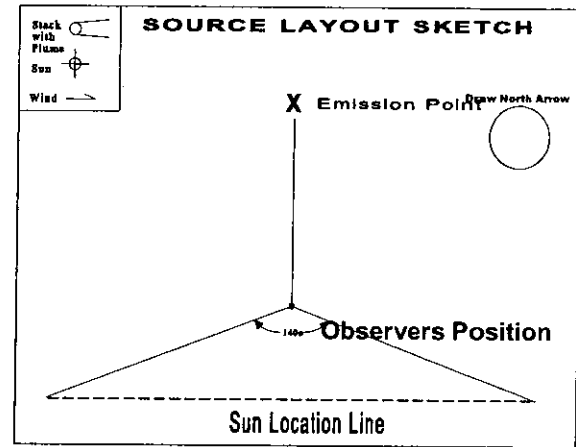
Test No.: \_\_\_\_\_ Date: \_\_\_\_\_

Emission Unit: \_\_\_\_\_

Production Rate/Operating  
Rate: \_\_\_\_\_

Unit Operating Hours: \_\_\_\_\_

Hrs. of observation: \_\_\_\_\_



Clock Time	Initial				Final
Observer location					
Distance to discharge					
Direction from discharge					
Height of observer point					
Background description					
Weather conditions					
Wind Direction					
Wind speed					
Ambient Temperature					
Relative humidity					
Sky conditions: (clear, overcast, % clouds, etc.)					
Plume description:					
Color					
Distance visible					
Water droplet plume? (Attached or detached?)					
Other information					

## Page of

Company & Stationary Source \_\_\_\_\_ Certified Observer \_\_\_\_\_

### Clock Time

[illegible]

**Additional information:**

Observer Signature and Date

**Certified By and Date**

### Data Reduction:

Duration of Observation Period (minutes):

Duration Required by Permit (minutes)

Number of Observations

Highest Six –Minute Average Opacity (%)

Number of Observations exceeding 20%

In compliance with three-minute aggregate opacity limit? (Yes or No)

In compliance with six-minute opacity limit? (Yes or No)

### Average Opacity Summary

Set Number	Time Start—End	Opacity	
		Sum	Average

## Section 12. Material Balance Calculation

If the sulfur content of a fuel shipment is greater than 0.75% by weight, calculate the three-hour exhaust concentration of SO<sub>2</sub> using the following equations:

$$\begin{aligned}
 A. &= 31,200 \times [\text{wt}\%S_{\text{fuel}}] = 31,200 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 B. &= 0.148 \times [\text{wt}\%S_{\text{fuel}}] = 0.148 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 C. &= 0.396 \times [\text{wt}\%C_{\text{fuel}}] = 0.396 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 D. &= 0.933 \times [\text{wt}\%H_{\text{fuel}}] = 0.933 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 E. &= B + C + D = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 F. &= 21 - [\text{vol}\%_{\text{dry}}O_{2, \text{exhaust}}] = 21 - \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 G. &= [\text{vol}\%_{\text{dry}}O_{2, \text{exhaust}}] \div F = \underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 H. &= 1 + G = 1 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 I. &= E \times H = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{SO}_2 \text{ concentration} &= A \div I = \underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ ppm}
 \end{aligned}$$

The wt%S<sub>fuel</sub>, wt%C<sub>fuel</sub>, and wt%H<sub>fuel</sub> are equal to the weight percents of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent (wt%) of sulfur is obtained pursuant to condition 4. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (vol%<sub>dry</sub>O<sub>2, exhaust</sub>) is obtained from oxygen meters, manufacturer's data, or from the most recent ORSAT analysis at the same engine load used in the calculation.

Enter all of the data in percentages without dividing the percentages by 100. For example, if wt%S<sub>fuel</sub> = 1.0%, then enter 1.0 into the equations not 0.01 and if vol%<sub>dry</sub>O<sub>2, exhaust</sub> = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.346(c), 10/1/04]

### Section 13. ADEC Notification Form<sup>12</sup>

Stationary Source Name

Air Quality Permit Number

Company Name

#### When did you discover the Excess Emissions/Permit Deviation?

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Time: \_\_\_\_ : \_\_\_\_

#### When did the event/deviation occur?

Begin Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Time: \_\_\_\_ : \_\_\_\_ (please use 24hr clock)

End Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Time: \_\_\_\_ : \_\_\_\_ (please use 24hr clock)

**What was the duration of the event/deviation?:** \_\_\_\_ : \_\_\_\_ (hrs:min) or \_\_\_\_ days  
(total # of hrs, min, or days, if intermittent then include only the duration of the actual emissions/deviation)

**Reason for Notification:** (please check only 1 box and go to the corresponding section)

☐ Excess Emissions - Complete Section 1 and Certify.

☐ Deviation from Permit Condition - Complete Section 2 and Certify

☐ Deviations from COBC, CO, or Settlement Agreement - Complete Section 2 and Certify

#### Section 1. Excess Emissions

(a) Was the exceedance: ☐ Intermittent or ☐ Continuous

(b) Cause of Event (Check one that applies):

☐ Start Up /Shut Down

☐ Natural Cause (weather/earthquake/flood)

☐ Control Equipment Failure

☐ Scheduled Maintenance/Equipment Adjustment

☐ Bad fuel/coal/gas

☐ Upset Condition

☐ Other \_\_\_\_\_

(c) Description

Describe briefly, what happened and the cause. Include the parameters/operating conditions exceeded, limits, monitoring data and exceedance.

(d) Emissions Units Involved:

Identify the emission unit involved in the event, using the same identification number and name as in the permit. Identify each emission standard potentially exceeded during the event and the exceedance.

Unit ID	Unit Name	Permit Condition Exceeded/Limit/Potential Exceedance

<sup>12</sup> Revised as of August 24, 2006.

(e) Type of Incident (Please Check only one).

- ☐ Opacity \_\_\_\_\_ %      ☐ Venting \_\_\_\_\_ (gas/scf)      ☐ Control Equipment Down  
☐ Fugitive Emissions      ☐ Emission Limit Exceeded      ☐ Flaring  
☐ Marine Vessel Opacity      ☐ Other: \_\_\_\_\_

(f) Unavoidable Emissions:

Do you intend to assert that these excess emissions were unavoidable?      ☐ Yes      ☐ No

Do you intend to assert the affirmative defense of 18 AAC 50.235?      ☐ Yes      ☐ No

Certify Report (go to end of form)

## Section 2 Permit Deviations

(a) Permit Deviation Type (check one only box, corresponding with the section in the permit).

- ☐ Emission Unit Specific  
☐ Failure to monitor/report  
☐ General Source Test/Monitoring Requirements  
☐ Recordkeeping/Reporting/Compliance Certification  
☐ Standard Conditions Not Included in Permit  
☐ Generally Applicable Requirements  
☐ Reporting/Monitoring for Diesel Engines  
☐ Insignificant Emission Unit  
☐ Record Keeping Failure  
☐ Stationary Source Wide  
☐ Other Section \_\_\_\_\_ (title of section and section number of your permit).

(b) Emission Unit Involved.

Identify the emission unit involved in the event, using the same identification number and name

Unit ID	Unit Name	Permit Condition / Potential Deviation

as in the permit. List the corresponding permit conditions and the deviation.

(c) Description of Potential Deviation:

Describe briefly what happened and the cause. Include the parameters/operating conditions and the potential deviation.

(d) Corrective Actions:

Describe actions taken to correct the deviation or potential deviation and to prevent future recurrence.

**Certification:**

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Phone Number: \_\_\_\_\_

**To Submit this Report:**

Fax to: 907-451-2187;

Email to: [airreports@dec.state.ak.us](mailto:airreports@dec.state.ak.us) - if emailed, the report must be certified within the Operating Report required for the same reporting period per condition 54;

Mail to: ADEC, Air Permits Program, 610 University Avenue, Fairbanks, AK 99709-3643;

Phone Notification: 907-451-5173 - phone notifications require a written follow-up report within the deadline listed in condition 53; OR

Online Submission: If submitted online, the report must be certified with the Operating Report required for the same reporting period per condition 54.



**Alaska Department of Environmental Conservation  
Air Permits Program**

**BP Exploration (Alaska) Inc.  
Crude Oil Topping Unit**

**STATEMENT OF BASIS  
of the terms and conditions for  
Permit No. AQ0265TVP02**

**Prepared by David Schleiger  
Public Comment Draft – October 16, 2008**

## INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit No. AQ0265TVP02.

## STATIONARY SOURCE IDENTIFICATION

Section 1 of Operating Permit No. AQ0265TVP02 contains information on the permitted activities at the stationary source as provided in the Title V permit application.

The stationary source is owned and operated by BP Exploration (Alaska) Inc. is the Permittee for the stationary source's operating permit.

The stationary source (Crude Oil Topping Unit (COTU)) is owned and operated by BP Exploration (Alaska) Inc., Phillips Alaska, Inc., Chevron USA Inc., and Exxon Company U.S.A., d.b.a. BP Exploration (Alaska) Inc., and BP Exploration (Alaska) Inc. is the Permittee for the stationary source's operating permit. This one source has multiple permits. The SIC code for this stationary source is 1311 *Crude Petroleum and Natural Gas*. The Crude Oil Topping Unit is a small petroleum refinery that produces naphtha and diesel fuels for many of the oil producing facilities on the north slope of the Brooks range. Although the COTU is a small petroleum refinery, this operation is properly classified as an oil and gas exploration operation because all of the fuel produced by the COTU is used by equipment onsite in support of oil and gas development activities at the Prudhoe Bay Oil Field.

## EMISSION UNIT INVENTORY AND DESCRIPTION

Under 18 AAC 50.326(a), the Department requires operating permit applications to include identification of all emissions-related information, as described under 40 CFR 71.5(c)(3).

The emission units at the Crude Oil Topping Unit classified that have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of Operating Permit No. AQ0265TVP02.

Table A of Operating Permit No. AQ0265TVP02 contains information on the emission units regulated by this permit as provided in the application. The table is provided for informational and identification purposes only. Specifically, the source rating/size provided in the table is not intended to create an enforceable limit.

## COMPLIANCE ASSURANCE MONITORING

Compliance Assurance Monitoring (CAM), 40 C.F.R. 64 is not applicable to this permit. Per 40 C.F.R. 64.2(a), General Applicability, the requirements of this part apply to a pollutant-specific emissions unit that is required to obtain a part 71 permit if the unit is subject to an emission limit, uses a control device to achieve compliance with that limit, and has potential pre-controlled emissions that would classify it as a major source.

COTU, uses a flare as a control device for emissions vented from TK1, however; the emissions do not exceed the regulatory amount. No other emission source uses a control device to control emissions.

## EMISSIONS

A summary of the potential to emit (PTE)<sup>13</sup> and assessable PTE as indicated in the application and as calculated by the Department from the Crude Oil Topping Unit is shown in the table below. The table shows potential to emit from the Prudhoe Bay Operations Center (PBOC), the Main Construction Camp (MCC) and the Crude Oil Topping Unit (COTU), and the assessable emissions from the Crude Oil Topping Unit (COTU).

**Table C - Emissions Summary, in Tons Per Year (TPY)**

Pollutant	NO <sub>x</sub>	CO	PM-10	SO <sub>2</sub>	VOC	HAPS	Total
PTE for PBOC and MCC	165.1	136.9	43.1	36.2	17.1	12.6	398.4
PTE for COTU	32.3	39.0	2.74	3.87*	4.69	5.3	82.6
Combined PTE for PBOC, MCC, and COTU	197.4	175.9	45.84	36.2	21.79	17.9	481
Assessable Emissions - COTU	32.3	39.0	0	0	0	0	67

\* As reported by the Permittee in their application, based on 60 ppmv H<sub>2</sub>S in the natural gas fuel for heaters H1, H2, and H4 and flare F2, 162 ppmv H<sub>2</sub>S in the refinery fuel gas for flare F1, and 0.5% by weight sulfur for the diesel fuel for the insignificant diesel-fueled compressor.

The assessable PTE listed under condition 24.1 is the sum of the emissions of each individual regulated air pollutant for which the stationary source has the potential to emit quantities greater than 10 TPY. The emissions listed in Table C are estimates that are for informational use only. The listing of the emissions does not create an enforceable limit to the stationary source.

For criteria pollutants and HAPs, emissions are calculated using AP 42 emission factors.

## BASIS FOR REQUIRING AN OPERATING PERMIT

In accordance with AS 46.14.130(b), an owner or operator of a Title V source<sup>14</sup> must obtain a Title V permit consistent with 40 C.F.R. Part 71, as adopted by reference in 18 AAC 50.040.

Except for sources exempted or deferred by AS 46.14.120(e) or (f), AS 46.14.130(b) lists three categories of sources that require an operating permit:

- (1) A major source;

<sup>13</sup> *Potential to Emit or PTE means the maximum capacity of a stationary source to emit a pollutant under its physical or operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source, as defined in AS 46.14.990(23), effective 12/3/05.*

<sup>14</sup> "Title V source" means a stationary source classified as needing a permit under AS 14.130(b) [ref. 18 AAC 50.990(111)].

- 
- (2) A stationary source subject to federal new source performance standards or national emission standards;
  - (3) Another stationary source designated by the federal administrator by regulation.

This stationary source is further classified under 18 AAC 50.326(a) and 40 CFR 71.3(a) as

- (1) Any source, including an area source, subject to a standard, limitation or other requirement under section 111 of the Act (Standards of performance for new stationary source, NSPS).
- (2) Any source, including an area source, subject to a standard or other requirement under section 112 of the Act (National Emission Standards for Hazardous Air Pollutants, NESHAP).

The Crude Oil Topping Unit requires an operating permit because it is subject to NSPS Subpart A, J and Kb. The combined emissions from the Prudhoe Bay Operations Center, the Main Construction Camp, and the Crude Oil Topping Unit have the potential to emit 100 tons per year (TPY) or more of a regulated air contaminant. These three facilities can be aggregated because they share the same gravel pad. Aggregation of these three facilities classifies them as an 18 AAC 50.325(b)(1) facility. Insignificant emission units owned and controlled by others may be situated on the same gravel pad without changing the facility (PBOC/MCC & COTU) classification.

## **CURRENT AIR QUALITY PERMITS**

### **Previous Air Quality Permit to Operate**

No previous air quality control permit-to-operate exists for this facility.

### **Construction Permits**

No construction permits have been issued for this stationary source after January 18, 1997 (the effective date of the new divided operating and construction-permitting program). No federal PSD Permit was issued for these activities.

### **Title V Operating Permit Application, Revisions and Renewal History**

The Permittee was issued Title V Operating Permit No. AQ0265TVP01 on July 29, 2002. The Permittee submitted a renewal application for Operating Permit No. AQ0265TVP01 on March 1, 2007.

## **STATIONARY SOURCE-SPECIFIC REQUIREMENTS CARRIED FORWARD**

State of Alaska regulation in 18 AAC 50.326(j) with reference to 40 CFR Part 71.6 requires that an operating permit include all emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance. These requirements include, but not limited to, each facility-specific requirement established in the most recent operating permit or in any other construction permit issued under 18 AAC 50 that are still in effect at the time of permit issuance. Table D below lists

the requirements carried over from Permit-to-Operate No. AQ0265TVP01 into Operating Permit No. AQ0265TVP02.

**Table D - Comparison of Previous Permit-to-Operate No. AQ0265TVP02 Conditions to Operating Permit No. AQ0265TVP02 Conditions<sup>15</sup>**

Permit No. AQ0265TVP01 Condition Number	Description of Requirement	Permit No. AQ0265TVP02 Condition Number	How condition was revised
4	Visible Emissions	1	Changed formatting.
6	40 CFR 60, Subpart J requirements for entire source	15 and 43	Changed formatting, separated state and federal requirements into separate conditions, and added verbatim language from 40 CFR 60, Subpart J.
7	40 CFR 60, Subpart Kb recordkeeping requirements for TK1, TK2, TK3, and TK4	none	Deleted requirement for tanks TK2, TK3, and TK4. 40 CFR 60, Subpart Kb was revised on 10/15/03. VOL storage tanks having a capacity greater than 151 m <sup>3</sup> and a vapor pressure less than 3.5 kPa are not subject to NSPS, Subpart Kb.
8, 9, 10, 11	40 CFR 60, Subpart Kb requirements for F1 and TK1	18	Changed formatting. Added verbatim language from 40 CFR 60, Subpart Kb and 40 CFR 60.18
16	40 CFR 61, Subpart FF requirements for entire source	19	Changed formatting. Added verbatim language for 40 CFR 61, Subpart FF.
Entire Permit	State requirements	Entire permit	Changed formatting and content to match current applicable regulations and permit format.

### COMPLIANCE HISTORY

The Crude Oil Topping Unit (COTU) has operated at its current location since about 1969. Since it did not have a permit it was not routinely inspected prior to issuance of Operating Permit No. 265TVP01. There were no outstanding compliance issues with the Department under the former 18 AAC 50. However, the previous owner of the COTU had declared that the COTU was not in compliance with 40 C.F.R. 60.18(c)(5), 60.18(f)(4), 60.112b(a)(3)(ii), 60.113b(d) and 60.115b(d)(1) solely because the installed orifice plate flow meter had not been calibrated using EPA's 40 C.F.R. 60, Appendix A Reference Method 2D. At the time of permit issuance, the Permittee believed the orifice plate to be accurate and calibration to be infeasible. The previous operator on November 28, 1998, requested written confirmation from EPA that a waiver from the Method 2D calibration would be provided as requested in prior correspondence dated November 11, 1997, February 10, 1998, and April 11, 1998. On March 30, 2001 and June 6, 2001, the Permittee contacted EPA Region X to determine the status of the waiver request and to re-submit the request. In a letter to Permittee, dated April 5, 2002, EPA denied the request for a waiver.

<sup>15</sup> This table does not include all standard and general conditions.

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The original permit, issued July 29, 2002, contained a compliance plan section that required the Permittee to either 1) obtain a waiver of the orifice plate flow meter calibration requirement from EPA, or 2) calibrate the orifice plate using a method acceptable to EPA. After receiving the April 5, 2002 letter from EPA denying a requested waiver, the Permittee included a Compliance Plan Progress Report with the operating report for second quarter 2003, which stated that the flow measurement calibrations were conducted in accordance with EPA's 40 C.F.R. 60, Appendix A Reference Method 2D and that the compliance plan requirements had been satisfied. The Department concurred that the compliance plan was satisfied and indicated as such in the cover letter to a Full Compliance Evaluation Report, dated February 27, 2006.

Review of the permit files for this stationary source, which includes the past inspection reports indicate a stationary source generally operating in compliance with its operating permit.

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## STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

**The state and federal regulations for each condition are cited in Operating Permit No. AQ0265TVP02.**

### **Conditions 1 and 2. Visible Emissions Standard and MR&R**

**Legal Basis:** These conditions ensure compliance with the applicable requirements in 18 AAC 50.050(a) and 18 AAC 50.055(a).

18 AAC 50.055(a) applies to the operation of fuel-burning equipment and industrial processes.

- EU IDs F1, F2, H1, H2, and H4 are fuel-burning equipment or industrial processes.

U.S. EPA incorporated these standards as revised in 2002 into the State Implementation Plan effective September 13, 2007.

**Factual basis:** Condition 1 requires the Permittee to comply with the visible emission standards applicable to fuel-burning equipment. The Permittee shall not cause or allow the equipment to violate this standard.

This condition has recently been adopted into regulation as a standard condition. MR&R requirements are listed in condition 2 of the permit.

The Permittee must establish by actual visual observations, which can be supplemented by other means, such as a defined Stationary Source Operation and Maintenance Program that the stationary source is in continuous compliance with the State's emission standards for visible emissions and particulate matter.

These conditions detail a stepwise process for monitoring compliance with the State's visible emissions and particulate matter standards for liquid and gas fired sources. Equipment types covered by these conditions are internal combustion engines, turbines, heaters, boilers, and flares. Initial monitoring frequency schedules are established along with subsequent reductions or increases in frequency depending on the results of the self-monitoring program.

Monitoring frequencies for hydrocarbon fuels, both liquid and gaseous, are detailed in these conditions. The monitoring intervals for gaseous fuels are less frequent than for liquid fuels in recognition of the reduced propensity of gaseous fuels to produce particulate matter as a result of combustion. This reduced level of monitoring for individual facilities in conjunction with the very large number of gas fired sources in Alaska should provide the Department with sufficient data to evaluate the compliance history of these sources as a category.

Reasonable action thresholds are established in these conditions that require the Permittee to progressively address potential visible emission problems from sources either through maintenance programs and/or more rigorous tests that will quantify whether a specific emission standard has been exceeded.

Condition 2 was developed to provide a standardized version of flare monitoring that is not dependent upon the type or design of upstream equipment. It has been claimed that gas-fired flares normally burn without emitting visible emissions, but actual field data demonstrating

this assumption is not available. However, gas-fired flares have been shown to smoke when a control device, i.e. a knockout drum, flare scrubber, gas or steam assist, or vapor recovery system malfunctions. Thus, the condition sets out a protocol to collect actual field data to determine compliance with the 20 percent opacity standard for flares.

A recent Department analysis of industry flaring operations indicates that 49 percent of the gas flared (by volume) is for pilot/purge, 25 percent is for flaring less than one hour, and 26 percent is for flaring that lasts more than one hour. Pilot/purge flaring constitutes half of all flaring by volume and is continuous in nature and can be observed at any time. This type of flaring has not caused violations of the opacity standard in the past and can be checked at any time by source operators or agency inspectors when present. The remaining half of the flaring volume is split evenly between less than and greater than one-hour duration. Therefore, the monitoring scheme in this condition addresses the half of the non-continuous flaring operations that are scheduled and for which a certified observer can reasonably be located onsite.

Since it is impractical to require a source to have a certified Method-9 opacity reader on site at times for unpredictable emergency flaring, the monitoring protocol requires Method-9 readings only during scheduled flare events. Scheduled events such as those generated by maintenance activities and well testing of greater than one-hour in duration will be observed. These one-hour events are currently quantified and reported to the Alaska Oil and Gas Conservation Commission for other reasons and thus provides a confirming information record of the occurrence of these events. Only those events as defined in the condition need to be monitored. If no events meeting this definition occur during the life of the permit then no monitoring is required.

Since only flaring that is scheduled and exceeds one hour is required to be observed, operators will have time to provide certified Method-9 readers onsite. Most oil and gas production facilities in Alaska are located at remote sites, so it is not reasonable to self-monitor all or even a large sample of the flaring that occurs. Data collected from planned events will help the Department refine this monitoring scheme during future permit cycles. Process upsets and emergency events that may or may not exceed one hour occur randomly and do not lend themselves easily to periodic monitoring. At this time, the Department will rely on stationary source excess emission reports, citizen complaints, agency inspections and other credible evidence for information concerning these short term and emergency events.

#### **Gas Fired:**

Monitoring – The monitoring of gas fired sources for visible emissions is waived, i.e. no source testing will be required. The Department has found that natural gas fired equipment inherently has negligible PM emissions. However, the Department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must certify in their operating report that only gaseous fuels are used in the equipment.



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**Flares:**

Monitoring for flares (EU IDs F1 and F2) requires Method-9 observations of scheduled flaring events lasting more than one hour. The Permittee must report the results of these observations to the Department.

**Condition 3, Particulate Matter (PM) Standard**

**Legal Basis:** These conditions ensure compliance with the applicable requirement in 18 AAC 50.055(b). This requirement applies to operation of all industrial processes and fuel burning equipment in Alaska.

- EU IDs F1, F2, H1, H2, and H4 are fuel-burning equipment.

**Factual basis:** Condition 3 requires the Permittee to comply with the state PM (also called grain loading) standard applicable to fuel-burning equipment. The Permittee shall not cause or allow fuel-burning equipment to violate this standard.

The Permittee must establish by actual visual observations which can be supplemented by other means, such as a defined Stationary Source Operation and Maintenance Program, that the stationary source is in continuous compliance with the State's emission standards for particulate matter.

These conditions detail a stepwise process for monitoring compliance with the State's particulate matter standards for liquid and gas fired sources. Equipment types covered by these conditions are internal combustion engines, turbines, heaters, and boilers. Initial monitoring frequency schedules are established along with subsequent reductions or increases in frequency depending on the results of the self-monitoring program.

Monitoring frequencies for hydrocarbon fuels, both liquid and gaseous, are detailed in these conditions. The monitoring intervals for gaseous fuels are less frequent than for liquid fuels in recognition of the reduced propensity of gaseous fuels to produce particulate matter as a result of combustion. This reduced level of monitoring for individual facilities in conjunction with the very large number of gas fired sources in Alaska should provide the Department with sufficient data to evaluate the compliance history of these sources as a category.

**Gas Fired:**

Monitoring – The monitoring of gas fired sources for particulate matter is waived, i.e. no source testing will be required. The Department has found that natural gas fired equipment inherently has negligible PM emissions. However, the Department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must annually certify that only gaseous fuels are used in the equipment.

**Flares:**

Monitoring of gas fired flares for particulate matter is waived, i.e. no source testing will be required, because of the difficulty and questionable results these tests produce when applied to flares. The Department has recognized this fact by incorporating the waiver in the State

Implementation Plan adopted in November 1984 which has not been federally approved. No recordkeeping or reporting is required.

#### **Condition 4, Sulfur Compound Emissions**

**Legal Basis:** This condition requires the permittee to comply with the sulfur compound emission standard for all fuel-burning equipment and industrial processes in the State of Alaska.

- EU IDs F1, F2, H1, H2, and H4 are fuel-burning equipment and industrial processes.

**Factual basis:** The condition requires the Permittee to comply with the sulfur compound emission standard applicable to fuel-burning equipment. The Permittee may not cause or allow the affected equipment to violate this standard.

Sulfur dioxide comes from the sulfur in the liquid, hydrocarbon fuel (e.g. diesel or No. 2 fuel oil). Fuel containing no more than 0.75 percent sulfur by weight will always comply with the emission standard. For fuels with sulfur content higher than 0.75 percent, the condition requires the Permittee to use Section 12 to calculate the sulfur-dioxide concentration using the equations to show that the standard is not exceeded.

Fuel sulfur testing will verify compliance.

Fuel gas sulfur is measured as hydrogen sulfide ( $\text{H}_2\text{S}$ ) concentration in ppm by volume (ppmv). Calculations<sup>16</sup> show that natural gas containing no more than 4000 ppm  $\text{H}_2\text{S}$  will always comply with this emission standard. Refinery gases with different molecular weights will have somewhat different thresholds for the sulfur compound compliant threshold. However refinery fuel gas must meet the sulfur standard of 40 CFR 60 Subpart J.

Equations to calculate the exhaust gas  $\text{SO}_2$  concentrations resulting from the combustion of fuel gas were not included in this permit. Fuel gas with an  $\text{H}_2\text{S}$  concentration of even 10 percent of 4000 ppm is currently not available in Alaska and is not projected to be available during the life of this permit.

**Recordkeeping** - For Diesel fuel the Permittee is required to record the fuel sulfur content or fuel grade of each shipment and all material balance calculations, and for fuel gas, the  $\text{H}_2\text{S}$  concentration of the fuel gas.

**Reporting** – The Permittee is required to report as State excess emissions whenever the fuel combusted causes sulfur compound emissions to exceed the standards in this condition. The Permittee is required to include the material balance calculations for fuel oil in the excess emissions report.

The Permittee is required to include copies of the records mentioned in the previous paragraph with the stationary source operating report.

#### **Conditions 5 - 8, Insignificant Sources**

**Legal Basis:** The permittee is required to meet state emission standards set out in 18 AAC 50.055 for all industrial processes fuel-burning equipment, and incinerators regardless of size.

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<sup>16</sup> See ADEC Air Permits Web Site at <http://www.dec.state.ak.us/air/ap/docs/sulfgas.pdf>, under "Stoichiometric Mass Balance Calculations of Exhaust Gas  $\text{SO}_2$  Concentration."

**Factual basis:** The conditions re-iterate the general standards and require compliance for insignificant sources. The Permittee may not cause or allow their equipment to violate these standards. Insignificant sources are not listed in the permit unless specific monitoring, recordkeeping and reporting are necessary to ensure compliance.

The Department finds that the insignificant sources at this stationary source do not need specific monitoring, recordkeeping and reporting to ensure compliance under these conditions.

Condition 5.1 requires certification that the sources did not exceed state emission standards during the previous year and did not emit any prohibited air pollution.

#### **Conditions 9 – 13, 16 and 17 NSPS Subpart A Requirements**

**Legal Basis** The permittee must comply with those New Source Performance Standard (NSPS) provisions incorporated by reference the NSPS effective July 1, 2004, for specific industrial activities, as listed in 18 AAC 50.040<sup>17</sup>.

Most (with the exception of some storage tanks) sources subject to an NSPS are subject to Subpart A. At this stationary source, EU ID TK1 is subject to NSPS Subpart Kb and therefore subject to Subpart A. Also, EU ID F1 is subject to NSPS Subpart J and therefore subject to Subpart A.

Condition 9.1 through 9.3- The Permittee has already complied with the notification requirements in 40 C.F.R. 60.7 (a)(1) - (4) for EU IDs TK1 and F1. However, the Permittee is still subject to these requirements in the event of a new NSPS source or reconstruction of one of these sources.

Condition 9.4 - The requirements to notify the EPA and the Department of any proposed replacement of an affected stationary source (40 C.F.R. 60.15) applies to EU IDs F1 and TK1 in the event of a proposed replacement of these sources.

Condition 10 - Start-up, shutdown, or malfunction record maintenance requirements in 40 C.F.R. 60.7(b) are applicable to all NSPS sources subject to Subpart A.

Recordkeeping requirements in 40 C.F.R. 60.7(f) are applicable to all NSPS sources.  
(Satisfied by condition 49)

Condition 11 - Good air pollution control practices in 40 C.F.R. 60.11 are applicable to all NSPS sources subject to Subpart A (EU IDs F1 and TK1).

Condition 12 - states that any credible evidence may be used to demonstrate compliance or establishing violations of relevant NSPS standards for EU IDs F1 and TK1.

Condition 13 - Concealment of emissions prohibitions in 40 C.F. R. 60.12 are applicable to EU IDs F1 and TK1.

Condition 13 - Monitoring requirements in 40 C. F. R. 60.13 are applicable to EU ID TK1 because a CMS is used to determine compliance with Subpart J emission standards.

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<sup>17</sup> EPA has not delegated to the department the authority to administer the NSPS program as of the issue date of this permit.

EU ID F2 is not subject to 40 C.F. R. 60.18 because it is a safety device and not a control device. It does not receive any tank vapors from any NSPS regulated sources.

Conditions 16 and 17 - NSPS excess emission reporting requirements and summary report form in 40 C.F.R. 60.7(c) & (d) are applicable to EU ID F1 because it combusts refinery fuel gas, is an NSPS regulated source, and is required to operate a continuous monitoring system (CMS) under the NSPS. The department has included in Attachment A of the statement of basis a copy of the federal EEMSP summary report form for use by the stationary source.

**Factual Basis:** Subpart A contains the general requirements applicable to all affected facilities (sources) subject to NSPS. In general, the intent of NSPS is to provide technology-based emission control standards.

#### **Condition 14, General Control Device Requirements**

**Legal Basis:** Condition 14 applies because it is the federal requirement applicable to Flare F1 which is subject to NSPS Subpart A, 60.18, flares.

**Factual Basis:** This condition is carried over from Operating Permit AQ0265TVP01. Source ID F1 is subject to the federally enforceable requirement: to have a flame without visible emissions, to combust gas with a heating value of 300 BTU/scf or greater, and to be operated with a velocity less than a computed maximum velocity. Because the flare is the control device for VOC emissions from tank TK1, it is subject to the requirements in Subpart Kb such as 40 C.F.R. 60.113b(d) and 60.115b(d). The flare requirements in Subpart Kb refer back to the requirements in 40 C.F.R. 60.18.

The requirement that the Permittee shall design and operate Source ID F1 flare to operate with NO VISIBLE EMISSIONS is addressed by Condition 18.3.

Flare F1 shall be operated with a flame present at all times. The presence of a Flare Pilot Flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. The flare shall be monitored to ensure that it is operated and maintained in conformance with its design. The flare shall be operated at all times when emissions may be vented to it.

The flare shall be used ONLY with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if air or steam assisted; or, 7.45 MJ/scm (200 Btu/scf) or greater if unassisted. The net Heating Value of the gas being combusted shall be calculated using the following equation:

$$HT = K \times \sum (C_i H_i)$$

Where:

HT = Net heating value of the sample (MJ/scm); where the net enthalpy per mole of off gas is based on combustion at 25 degrees C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 degrees C.

K = Constant =  $1.74 \times 10^{-7}$  (1/PPM)(gmole/scm)(MJ/kcal), where the Standard Temperature for (gmole/scm) is 20 degrees C;

$C_i$  = Concentration of sample component  $i$  in PPM on a wet basis, as measured for organics by EPA, 40 C.F.R. 60, Appendix A, Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1947-77 (Incorporated by reference through 40 C.F.R. 60.17);

$H_i$  = Net Heat of Combustion of sample component  $i$ , kcal/g-mole @ 25 degrees C and 760 mm Hg.

The heats of combustion may be determined using ASTM D2382-76 (incorporated by reference through 40 C.F.R. 60.17) if published values are not available or cannot be calculated. Since the flare is air-assisted, it shall be designed and operated with an exit velocity less than the maximum velocity ( $V_{max}$ ), determined by the following equation:

$$V_{max} = 8.706 + 0.7084 (HT)$$

Where:

$V_{max}$  = maximum permitted velocity, m/sec;

HT = net heating value (MJ/scm)

The actual exit velocity of a flare shall be determined by dividing the volumetric flow-rate (in units of standard temperature and pressure), as determined by EPA, 40 C.F.R. 60, Appendix A, Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

#### **Condition 15, NSPS Subpart J Requirements**

**Legal Basis:** NSPS Subpart J applies to fluid catalytic cracking units catalyst regenerators, fuel gas combustion devices, and all Claus sulfur recovery plants except Claus plants of 20 long tons per day or less, at a petroleum refinery which commences construction or modification after June 11, 1973.

- Crude Oil Topping Unit is a petroleum refinery as defined in 40 CFR 60.101, and EU ID F1 is a fuel gas combustion device, and is therefore subject to Subpart J.

**Factual Basis:** This condition incorporates the Subpart J sulfur oxide standard. The Permittee may not cause or allow EU ID F1 to violate this standard.

#### **Condition 18, NSPS Subpart Kb Requirements**

**Legal Basis:** These requirements apply to storage vessels with design capacities meeting the requirements as specified in 40 C.F.R. 60.112b(a) & (b) or their equivalents as provided in 40 C.F.R. 60.114b. The Permittee may not cause or allow the equipment to violate these standards. Affected facilities are VOL storage vessels which have design capacities of 75 m<sup>3</sup> or more storing volatile organic liquid with maximum true vapor pressure of 5.2 kPa or more, and for which construction, reconstruction, or modification commenced after 7/23/84.

- EU ID TK1 falls within this category, and is therefore subject to Subpart Kb.

**Factual Basis:** This condition incorporates NSPS Subpart Kb requirements. The Permittee has installed a closed vent system and flare to control emissions. The Permittee may not cause or allow the equipment to violate these standards. Recordkeeping and reporting requirements are as stated.

**Subpart VV Applicability** - The provisions of 40 CFR 60, Subpart VV apply to affected facilities in the synthetic organic chemicals manufacturing industry. The closed vent system and flare are an affected facility, as defined in 40 CFR 60.481, and the flare commenced constructed, reconstructed, or modified after January 5, 1981, and on or before November 7, 2006. Therefore, the closed vent system and flare is subject to the requirements of this subpart.

**Method 22 Requirements for Flare F1**

The condition requires the Permittee to comply with the federal and the state visible emission standards applicable to fuel-burning equipment. The federal requirement is the Permittee shall design and operate Source ID F1 flare to operate with NO VISIBLE EMISSIONS. The Permittee shall not cause or allow the equipment to violate these standards.

**Monitoring** - The department has found that natural gas fired equipment inherently has negligible opacity. Therefore, certification that a source only burns natural gas ensures that the opacity standard is met. For other equipment, the absence of visible smoke clearly indicates that a source is complying with the visible emission standard.

Flare F1 is observed daily for the first 30-days for the presence or absence of visible emissions in the exhaust. If emissions are not visible in the first 30 operating days, then observations can be switched to monthly basis. If visible emissions are observed Permittee must take Method 22 readings and Method 9 readings. Corrective actions must be taken if the Permittee observes visible emission in the exhaust exceeding the 5 minute per 2 hour limit. The Permittee must also use the Method-9 monitoring method when smoke is observed and if action to eliminate visible emissions from the source is not successful. After completing the action, the Permittee must continue to observe the exhaust for the presence or absence of visible emissions. If visible emissions are again observed, the Permittee must repeat the procedure.

**Recordkeeping** - The Permittee is required to record the results of all visible emission observations and record any actions taken to reduce visible emissions.

**Reporting** - The Permittee is required to report: 1) emissions in excess of the federal and the state visible emissions standard, 2) and deviations from permit conditions. The Permittee is required to include copies of the results of all visible emission observations with the facility operating report.

**Monitoring of gas fired appliances for particulate matter** is waived, i.e. no source testing will be required, because of the difficulty and questionable results these tests produce when applied to flares. The department has recognized this fact by incorporating the waiver in the State Implementation Plan adopted in November 1984 which has not been federally approved. Exhaust from properly operated gas fired appliances is smokeless. And according to EPA -87- 017 smoke means particulate matter, so smokeless must mean without particulate matter.

**Monitoring** - There are no permit requirements for initial source testing to show compliance with the PM standard. The department believes that gas fired appliances comply with the PM standard. However, the department can request a source test for PM emissions from any smoking equipment.

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### Condition 19, NESHAP Requirements

**Legal Basis:** NESHAP Subpart FF applies to owners and operators of hazardous waste treatment, storage, and disposal facilities that treat, store, or dispose of hazardous waste generated by a petroleum refinery. The Crude Oil Topping Unit is a petroleum refinery, as that term is defined in 40 CFR 61.341, and therefore its treatment, storage and disposal facilities are subject to Subpart FF.

The gaseous stream from any waste management unit, treatment process, or wastewater treatment system not routed to a fuel gas system, as defined in §61.341, is therefore not exempt from this subpart, pursuant to 40 CFR 61.340(d).

The total annual benzene quantity from facility waste is less than 10 megagrams per year (Mg/yr) (11 ton/yr). Therefore, pursuant to 40 CFR 61.342(a), the Crude Oil Topping Unit is exempt from the emission standards under this subpart.

Pursuant to 40 CFR 61.356(b), the Permittee is required to maintain records that identify each waste stream at the facility subject to this subpart, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with this subpart.

In the event that there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr (1.1 ton/yr) or more, then the Permittee is required to submit a report that summarizes the regulatory status of each waste stream subject to §61.342.

**Factual Basis:** This condition incorporates certain recordkeeping and reporting requirements from the Subpart FF Benzene Waste Operations NESHAP. Pursuant to 40 CFR 61.356(b), the Permittee is required to maintain records that identify each waste stream at the facility subject to this subpart, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with this subpart. In the event that there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr (1.1 ton/yr) or more, then the Permittee is required to submit a report that summarizes the regulatory status of each waste stream subject to §61.342.

### Conditions 20 - 22, Standard Terms and Conditions

**Legal Basis:** These are standard conditions required under 18 AAC 50.345(a) and (e)-(g) for all operating permits. This provision is incorporated in the federally approved Alaska operating permit program of November 30, 2001.

**Factual Basis:** These are standard conditions required under 18 AAC 5.0345(a) and (e)-(g) for all operating permits.

### Conditions 23, Administration Fees

**Legal basis:** This condition ensures compliance with the applicable requirement in 18 AAC 50.400-405 as derived from AS 46.14.130. This condition requires the permittee, owner, or operator to pay administration fees as set out in regulation. Paying administration

fees is required as part of obtaining and holding a permit with the department or as a fee for a department action.

**Factual Basis:** The owner or operator of a stationary source who is required to apply for a permit under AS 46.14.130 shall pay to the Department all assessed permit administration fees. The regulations in 18 AAC 50.400-405 specify the amount, payment period, and the frequency of fees applicable to a permit action.

#### **Conditions 24 - 25, Emission Fees**

**Legal Basis:** These conditions ensure compliance with the applicable requirement in 18 AAC 50.410-420. The regulations require all permits to include due dates for the payment of fees and any method the Permittee may use to re-compute assessable emissions.

**Factual Basis:** These standard conditions require the Permittee to pay fees in accordance with the Department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date.

The default assessable emissions are emissions of each air pollutant authorized by the permit (AS 46.14.250(h)(1)(A)). Air pollutant means any regulated air pollutant and any hazardous air pollutant. Therefore, assessable emissions under AS 46.14.250(h)(1)(A) means the potential to emit any air pollutant identified in the permit, including those not specifically limited by the permit. For example, hydrogen chloride (HCl) emissions from an incinerator are assessable emissions because they are a hazardous air pollutant, even if there is currently no emission limit on HCl for that class of incinerator.

The conditions also describe how the Permittee may calculate actual annual assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1)(B), assessable emissions are based on each air pollutant. Therefore, fees based on actual emissions must also be paid on any pollutant emitted whether or not the permit contains any limitation of that pollutant.

This standard condition specifies that, unless otherwise approved by the Department, calculations of assessable emission based on actual emissions use the most recent previous calendar year's emissions. Since each current year's assessable emission are based on the previous year, the Department will not give refunds or make additional billings at the end of the current year if the estimated emissions and current year actual emissions do not match. The Permittee will normally pay for actual emissions - just with a one-year time lag.

Projected actual emissions may differ from the previous year's actual emissions if there is a change at the stationary source, such as changes in equipment or an emission rate from existing equipment.

If the Permittee does not choose to annually calculate assessable emissions, emissions fees will be based on "potential to emit" (PTE).

The PTE set forth in the condition is based on liquid fuel with a sulfur content of 0.5 percent by weight or fuel gas with a sulfur content of 60 ppm H<sub>2</sub>S by volume. If the actual sulfur content of the fuel is greater than these assumptions, the assessable emissions calculations provided by the Permittee should reflect the actual sulfur content. The change in these values may result in SO<sub>2</sub> emissions that could trigger PSD.



The address to submit Assessable Emission Estimates was changed from the Standard Permit Condition to reflect the current address for submitting Assessable Emission Estimates.

### **Condition 26, Good Air Pollution Control Practice**

**Legal Basis:** This condition ensures compliance with the applicable requirement in 18 AAC 50.346(b)(5) and applies to all emission units, **except** those subject to federal emission standards, those subject to continuous emission or parametric monitoring, and for insignificant emission units, i.e., except EU IDs F2, H1, H2, H4, TK2, TK3, and TK4.

**Factual basis:** The condition requires the Permittee to comply with good air pollution control practices for all sources.

Maintaining and operating equipment in good working order is fundamental to preventing unnecessary or excess emissions. Standard conditions for monitoring compliance with emission standards are based on the assumption that good maintenance is performed. Without appropriate maintenance, equipment can deteriorate more quickly than with appropriate maintenance. If appropriate maintenance is not applied to the equipment, the Department may have to apply more frequent periodic monitoring requirements (unless the monitoring is already continuous) to ensure that the monitoring results are representative of actual emissions.

The Permittee is required to keep maintenance records to show that proper maintenance procedures were followed, and to make the records available to the Department. The Department may use these records as a trigger for requesting source testing if the records show that maintenance has been deferred.

### **Condition 27, Dilution**

**Legal Basis:** This condition prohibits the permittee from using dilution as an emission control strategy as set out in 18 AAC 50.045(a). This state regulation applies to the Permittee because the Permittee is subject to emission standards in 18 AAC 50.

**Factual Basis:** The condition prohibits the Permittee from diluting emissions as a means of compliance with any standard in 18 AAC 50.

### **Condition 28, Reasonable Precautions to Prevent Fugitive Dust**

**Legal Basis:** This condition requires the permittee to use reasonable precautions when handling, storing or transporting bulk materials or engineering in an industrial activity in accordance with the applicable requirement in 18 AAC 50.045(d). Bulk material handling requirements apply to the Permittee because the Permittee will engage in bulk material handling, transporting, or storing; or will engage in industrial activity at the stationary source.

This condition applies to operating permits for facilities that do not have an approved dust control plan, and contain one of the following sources: coal-fired boilers; coal handling facilities; construction of gravel pads or roads that are part of a permitted stationary source or other construction that has the potential to generate fugitive dust that reaches ambient air; commercial/industrial/municipal solid waste, air curtain, and medical waste incinerators; sewage sludge incinerators not using wet methods to handle that ash; mines; urea manufacturing; soil remediation units; or dirt roads under the control of the operator with frequent vehicle traffic.

**Factual Basis:** The underlying regulation, 18 AAC 50.045(d), requires the Permittee to take reasonable action to prevent particulate matter (PM) from being emitted into the ambient air.

Not all facilities have the potential to generate fugitive dust during the life of the permit. The Department will determine whether precautions are reasonable based on a variety of factors, including the distance to the stationary source boundaries, nature and content of the dust, proximity to neighbors, and the nature of the activity. This condition applies to the types of sources or activities that are likely to generate fugitive dust as identified above. It allows the precautions that are identified under the permit to be appropriate and specific to the activities conducted by the Permittee.

### **Condition 29, Stack Injection**

**Legal Basis:** This condition ensures compliance with the applicable requirement in 18 AAC 50.045(e)-(f). It prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting it into a stack). Stack injection requirements apply to the stationary source because the stationary source contains a stack or source constructed or modified after November 1, 1982.

**Factual Basis:** The condition prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting it into a stack). No specific monitoring for this condition is practical. Compliance is ensured by inspections, because the source or stack would need to be modified to accommodate stack injection.

### **Condition 30, Air Pollution Prohibited**

**Legal Basis:** This condition ensures compliance with the applicable requirement in 18 AAC 50.110. The condition prohibits the Permittee from causing any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property. Air Pollution Prohibited requirements apply to the stationary source because the stationary source will have emissions.

**Factual Basis:** The condition prohibits the Permittee from causing any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property. While the other permit conditions and emissions limitation should ensure compliance with this condition, unforeseen emission impacts can cause violations of this standard. These violations would go undetected except for complaints from affected persons. Therefore, to monitor compliance, the Permittee must monitor and respond to complaints.

The Permittee is required to report any complaints and injurious emissions. The Permittee must keep records of the date, time, and nature of all complaints received and summary of the investigation and corrective actions undertaken for these complaints and to submit copies of these records upon request of the Department.

The Department will determine whether the necessary actions were taken. No corrective actions are necessary if the complaint is frivolous or there is not a violation of

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18 AAC 50.110, however this condition is intended to prevent the Permittee from prejudging that complaints are invalid.

### **Condition 31, Technology-Based Emission Standard**

**Legal Basis:** The Permittee is required to take reasonable steps to minimize emissions if certain activity causes an exceedance of any technology-based emission standard in this permit. This condition ensures compliance with the applicable requirement in 18 AAC 50.235. Technology Based Emission Standard requirements apply to the stationary source because the stationary source contains equipment subject to a technology-based emission standard, such as BACT, MACT, LAER, NSPS or other “technologically feasible” determinations.

**Factual Basis:** The Permittee is required to take reasonable steps to minimize emissions if certain activity causes an exceedance of any technology-based emission standard in this permit. The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with condition 53. Excess emission reporting under condition 53 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under condition 53.

### **Condition 32, Asbestos NESHAP**

**Legal Basis:** The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 C.F.R. 61, Subpart M. This condition ensures compliance with the applicable requirement in 18 AAC 50.040(b)(1) and (2)(F). The asbestos demolition and renovation requirements apply if the Permittee engages in asbestos demolition or renovation.

**Factual Basis:** The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 C.F.R. 61, Subpart M. Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with these federal regulations.

### **Condition 33, Refrigerant Recycling and Disposal**

**Legal Basis:** This condition ensures compliance with the applicable requirement in 18 AAC 50.040(d) and applies if the Permittee engages in the recycling or disposal of certain refrigerants. The condition requires the Permittee to comply with the standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F, that will apply if the Permittee uses certain refrigerants.

**Factual Basis:** The condition requires the Permittee to comply with the standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F, that will apply if the Permittee uses certain refrigerants. Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with this federal regulation.

### **Condition 34, NESHAPS Applicability Determinations**

**Legal Basis:** This condition requires the Permittee to keep and make available to the department copies of the major stationary source determination and applicability of specific federal regulations that may apply to its stationary sources.

**Factual basis:** The Permittee has conducted an analysis of the stationary source and determined that it is not a major HAPs stationary source based on emissions. This condition requires the Permittee to keep and make available to the Department copies of the major stationary source determination.

### **Conditions 35 - 36, Halon Prohibitions**

**Legal Basis:** These prohibitions apply to all facilities that use halon for fire extinguishing and explosion inertion. The condition prohibits the permittee from causing or allowing violations of these prohibitions. The Crude Oil Topping Unit uses halon and is therefore subject to the federal regulations contained in 40 C.F.R. 82.

**Factual basis:** These conditions incorporate applicable 40 C.F.R. 82 requirements. The Permittee may not cause or allow violations of these prohibitions.

### **Condition 37, Open Burning**

**Legal Basis:** The condition requires the Permittee to comply with the regulatory requirements when conducting open burning at the stationary source. This condition ensures compliance with the applicable requirement in 18 AAC 50.065. The open burning state regulation in 18 AAC 50.065 applies to the Permittee if the Permittee conducts open burning at the stationary source.

**Factual Basis:** The condition requires the Permittee to comply with the regulatory requirements when conducting open burning at the stationary source.

No specific monitoring is required for this condition. Condition 37.1f requires the Permittee to keep "sufficient records" to demonstrate compliance with the standards for conducting open burning, but does not specify what these records should contain.

More extensive monitoring and recordkeeping is not warranted because the Permittee does not conduct open burning as a routine part of their business. Also, most of the requirements are prohibitions, which are not easily monitored. Additional monitoring is achieved through condition 30, which requires a record of complaints.

### **Condition 38, Source Aggregation**

**Legal Basis:** The statutory definition in AS 46.14.900(9) of a facility is installations that are adjacent and under common control. The COTU, PBOC, and MCC meet such definition.

**Factual Basis:** The aggregated potential emissions are the potential emissions from the COTU, the PBOC, and the MCC. The aggregation is for the purpose of determining Legal Basis with the modification requirements of 18 AAC 50.300(h)(3) and for determining classifications per 18 AAC 50.325.

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### **Condition 39, Requested Source Tests**

**Legal Basis:** The Permittee is required to conduct source tests as requested by the department. The Department adopted this condition under 18 AAC 50.345(k) as part of its operating permit program approved by EPA November 30, 2001.

**Factual Basis:** The Permittee is required to conduct source tests as requested by the Department. Monitoring consists of conducting the requested source test.

### **Conditions 40 - 42, Operating Conditions, Reference Test Methods, Excess Air Requirements**

**Legal Basis:** This condition ensures compliance with the applicable requirement in 18 AAC 50.220(b) and applies because the Permittee is required to conduct source tests by this permit. The Permittee is required to conduct source test as set out in conditions 40 through 42.

**Factual Basis:** The Permittee is required to conduct source test as set out in conditions 40 through 42. These conditions supplement the specific monitoring requirements stated elsewhere in this permit. Compliance monitoring with conditions 40 through 42 consist of the test reports required by condition 47.

### **Condition 43, Test Exemption**

**Legal Basis:** This condition ensures compliance with the applicable requirement in 18 AAC 50.345(a) and applies when the source exhaust is observed for visible emissions.

**Factual Basis:** As provided in 18 AAC 50.345(a), 5/03/02, the requirements for test plans, notifications and reports do not apply to visible emissions observations by smoke readers, except in connection with required particulate matter testing.

### **Conditions 44 - 47, Test Deadline Extension, Test Plans, Notifications and Reports**

**Legal Basis:** This condition ensures compliance with the applicable requirement in 18 AAC 50.345(l)-(o) and applies because the Permittee is required to conduct source test by this permit.

**Factual Basis:** Standard conditions 18 AAC 50.345(l) - (o) are incorporated through these conditions. These standard conditions supplement specific monitoring requirements stated elsewhere in this permit. The source test itself monitors compliance with this condition.

### **Condition 48, Particulate Matter (PM) Calculations**

**Applicability:** Applies when the Permittee tests for compliance with the PM standard.

**Factual Basis:** The condition incorporates a regulatory requirement for PM source tests. This condition supplements specific monitoring requirements stated elsewhere in this permit.

### **Condition 49, Recordkeeping Requirements**

**Legal Basis:** This condition requires the permittee to reduce particulate matter data in accord with 18 AAC 50.220(f). It applies when the Permittee tests for compliance with the PM standards in 18 AAC 50.050 or 50.055.

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**Factual Basis:** The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide an evidence of compliance with this requirement.

#### **Condition 50, Certification**

**Legal Basis:** This condition requires the permittee to comply with the certification requirement in 18 AAC 50.205 and applies to all Permittees under EPA's approved operating permit program of November 30, 2001.

**Factual Basis:** This condition requires the Permittee to certify all reports submitted to the Department. To ease the certification burden on the Permittee, the condition allows the excess emission reports to be **certified** with the stationary source report, even though it must still be **submitted** more frequently than the stationary source operating report. This condition supplements the reporting requirements of this permit.

#### **Condition 51, Submittals**

**Legal Basis:** This condition requires the permittee to comply with standardized reporting requirement in 18 AAC 50.326(j) and applies because the Permittee is required to send reports to the department.

**Factual Basis:** This condition requires the Permittee to send submittals to the address specified in this condition. Receipt of the submittal at the correct Department office is sufficient monitoring for this condition. This condition supplements the reporting requirements of this permit.

#### **Condition 52, Information Requests**

**Legal Basis:** This condition requires the permittee to submit requested information to the Department. This is a standard condition from 18 AAC 50.345(i) of the state approved operating permit program effective November 30, 2001.

**Factual Basis:** This condition incorporates a standard condition in regulation, which requires the Permittee to submit information requested by the Department. Monitoring consists of receipt of the requested information.

#### **Condition 53, Excess Emission and Permit Deviation Reports**

**Legal Basis:** This condition requires the permittee to comply with the applicable requirement in 18 AAC 50.235(a)(2) and 18 AAC 50.240. Also, the permittee is required to notify the department when emissions or operations deviate from the requirements of the permit.

**Factual Basis:** This condition satisfies two state regulations related to excess emissions - the technology-based emission standard regulation and the excess emission regulation. Although there are some differences between the regulations, the condition satisfies the requirements of each regulation.

For a situation lasting more than 24 hours, which constitutes a deviation, each 24-hour period is considered a separate deviation. "Deviation" as defined in 40 CFR 71 means both "excess emission" and "permit deviation" as used in this permit, which includes:

1. a situation where emissions exceed an emission limitation or standard;

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2. a situation where process or emissions control device parameter values indicate that an emission limitation or standard has not been met;
  3. a situation in which observations or data collected demonstrate noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit (including indicators of compliance revealed through parameter monitoring);
  4. a situation in which any testing, monitoring, recordkeeping or reporting required by this permit is not performed or not performed as required;
  5. a situation in which an exceedance or an excursion, as defined in 40 CFR Part 64, occurs; and,
  6. failure to comply with a permit term that requires submittal of a report.

In accordance with 18 AAC 50.990(34) "excess emissions" means emissions of an air pollutant in excess of any applicable emission standard or limitation which is item 1 of the above definitions from 40 CFR 71. These definitions shall be considered in determining an "excess emissions" or "permit deviation" when reporting an occurrence using the ADEC notification form.

The reports themselves and the other monitoring records required under this permit provide monitoring of whether the Permittee has complied with the condition. Please note that there may be additional federally required excess emission reporting requirements.

#### **Condition 54, Operating Reports**

**Legal Basis:** This condition ensures compliance with the applicable requirement in 18 AAC 50.346(b)(6) and applies to all permits.

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**Factual Basis:** The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements elsewhere in the permit. The reports themselves provide monitoring for compliance with this condition.

A modification of the Standard Permit Condition VII was added to provide clarification of transition periods between an expiring permit and a renewal permit to ensure that the Permittee reports against the permit terms and conditions of the permit that was in effect during those partial date periods of the transition. No format is specified: the Permittee may provide one report accounting for each permit term or condition and the effective permit at that time, or may chose to provide two reports – one accounting for reporting elements of permit terms and conditions from the end date of the previous operating report until the date of expiration of the old permit, and a second operating report accounting for reporting elements of terms and conditions in effect from the effective date of the renewal permit until the end of the reporting period.

This condition was further modified to allow the Permittee to submit one of the required two copies of the report electronically in lieu of paper. This change more adequately meets the requirements of 18 AAC 50 and agency needs provided the electronic version is compatible with ADEC software, as the department can more efficiently distribute the electronic copy to staff in other locations.

The department plans to adopt these changes into a revised standard condition in the future.

#### **Condition 55, Annual Compliance Certification**

**Legal Basis:** This condition ensures compliance with the applicable requirement in 18 AAC 50.040(j)(4) and applies to all Permittees.

**Factual Basis:** This condition specifies the periodic compliance certification requirements, and specifies a due date for the annual compliance certification. The reports themselves provide monitoring for compliance with this condition.

Condition 55.2 provides clarification of transition periods between an expiring permit and a renewal permit to ensure that the Permittee certifies compliance with the permit terms and conditions of the permit that was in effect during those partial date periods involved in the transition. No format is specified: the Permittee may provide one report certifying compliance with each permit term or condition and the effective permit at that time, or may chose to provide two reports – one certifying compliance with permit terms and conditions from January 1 until the date of expiration of the old permit, and a second report certifying compliance with terms and conditions in effect from the effective date of the renewal permit until December 31.

The Permittee is allowed to submit one of the required copies electronically at their discretion. This change more adequately meets the requirements of 18 AAC 50 and agency needs, as the department can more efficiently distribute the electronic copy to staff in other locations.

#### **Condition 56, NSPS and NESHAP Reports**

**Legal Basis:** The permittee is required to provide the federal administrator and department a copy of each emission unit report for units subject to NSPS or NESHAP federal



regulations under 18 AAC 50.326(j)(4). 40 CFR 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

**Factual Basis:** The condition supplements the specific reporting requirements in 40 C.F.R. 60 and 40 C.F.R. 61. The reports themselves provide monitoring for compliance with this condition.

#### **Conditions 57 - 59, Permit changes and revisions requirements**

**Legal Basis:** The permittee is obligated to notify the department of certain off-permit source changes and operational changes under 18 AAC 50.326(j)(4). 40 CFR 71.6(a)(10), (12), and (13) incorporated by reference under 18 AAC 50.040(j) require these provisions within this permit. 40 CFR 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

**Factual Basis:** These are conditions required in 40 CFR 71.6 for all operating permits to allow changes within a permitted stationary source without requiring a permit revision.

The Permittee did not request trading of emission increases and decreases as described in 71.6(a)(13)(iii).

#### **Condition 60, Permit Renewal**

**Legal Basis:** The Permittee must submit a timely and complete operating permit renewal application if the permittee intends to continue source operations in accord with the operating permit program under 18 AAC 50.326(j)(3). The obligations for a timely and complete operating permit application are set out in 40 CFR 71.5 incorporated by reference in 18 AAC 50.040(j)(3). 40 CFR 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

**Factual Basis:** In accordance with AS 46.14.230(a), this operating permit is issued for a fixed term of five years after the date of issuance, unless a shorter term is requested by the permit applicant. The Permittee is required to submit an application for permit renewal by the specific dates applicable to Crude Oil Topping Unit as listed in this condition. As stated in 40 CFR 71.5(a)(1)(iii), submission for a permit renewal application is considered timely if it is submitted at least six months but no more than eighteen months prior to expiration of the operating permit. According to 71.5(a)(2), a complete renewal application is one that provides all information required pursuant to 40 CFR 71.5(c) and must remit payment of fees owed under the fee schedule established pursuant to 18 AAC 50.400. 40 CFR 71.7(b) states that if a source submits a timely and complete application for permit issuance (including renewal), the source's failure to have a permit is not a violation until the permitting authority takes final action on the permit application. Therefore, for as long as an application has been submitted within the timeframe allowed under 40 CFR 71.5(a)(1)(iii), and is complete before the expiration date of the existing permit, then the expiration of the existing permit is extended and the Permittee has the right to operate under that permit until the effective date of the new permit. However, this protection shall cease to apply if, subsequent to the completeness determination, the applicant fails to submit by the deadline specified in writing by the Department any additional information needed to process the application. Monitoring, recordkeeping, and reporting for this condition consist of the application submittal.

### Condition 61 - 62, Permit Applications

**Legal Basis:** These conditions set out the protocol the permittee must follow to submit amendment, modification and renewal applications to the department under 18 AAC 50.326(j)(3) and to the Federal Administrator under 40 CFR 71.5, 71.7 and 71.10.

**Factual Basis:** This condition directs the Permittee to submit application materials to the Department's Anchorage office. The current address at time of permit issuance is provided in a footnote because it is likely to change during the life of this permit. The current address can be obtained by contacting the Department, checking the website, or by other reasonable means. The Permittee may submit copies of application materials in electronic formats compatible with ADEC software as the Department can more efficiently distribute the electronic copy to staff in other locations. Condition 62 directs the applicant to send copies of all application materials directly to the EPA, in electronic format if practicable.

### Conditions 63 - 68, General Compliance Requirements and Schedule

**Legal Basis:** These conditions ensure compliance with the applicable requirement in 18 AAC 50.326(j)(3). The Permittee is required to comply with these standard conditions set out in 18 AAC 50.345 included in all operating permits. 40 CFR 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

**Factual Basis:** These are standard conditions for compliance required for all operating permits.

### Conditions 69 - 70, Permit Shield

**Legal Basis** This condition ensures compliance with the applicable requirement in 18 AAC 50.326(j) and applies because the Permittee has requested that the Department shield the source from the applicable requirements listed under this condition under the Federally approved State operating program effective November 30, 2001.

**Factual Basis:** Table B of Operating Permit No. AQ0265TVP02 shows the permit shields that the Department granted to the Permittee.

**Table E - Permit Shields Denied.**

EU ID	Non-applicable Requirements	Reason for Denial
Flare F2	40 C.F.R. 60 Subpart A - General Provisions	This flare is subject to §60.18 - General Control Device Requirements.

**Attachment A**

Pollutant (Circle One—SO<sub>2</sub>/NO<sub>x</sub>/fuel sulfur)

Reporting period dates:

From \_\_\_\_\_ to \_\_\_\_\_

Company: \_\_\_\_\_

Emission Limitation \_\_\_\_\_

Address: \_\_\_\_\_

Monitor Manufacturer and Model No \_\_\_\_\_

Date of Latest CMS (CEMS and PEMS) Certification or Audit \_\_\_\_\_

Process Unit(s) Description: \_\_\_\_\_

Total source operating time in reporting period<sup>1</sup> \_\_\_\_\_

**Figure 1 -- Summary Report -- Excess Emission and Monitoring System Performance**

<b>Emission data summary<sup>1</sup></b>	<b>CMS (CEMS and PEMS) performance summary<sup>1</sup></b>
1. Duration of excess emissions in reporting period due to:  a. Startup/shutdown _____ b. Control equipment problems _____ c. Process problems _____ d. Other known causes _____ e. Unknown causes _____	1. CMS (CEMS and PEMS) downtime in reporting period reporting period due to:  a. Monitor equipment malfunctions _____ b. Non-Monitor equipment malfunctions _____ c. Quality assurance calibration _____ d. Other known causes _____ e. Unknown causes _____
2. Total duration of excess emission _____	2. Total CMS (CEMS and PEMS) Downtime _____
3. Total duration of excess emissions X (100)/[Total source operating time] _____ % <sup>2</sup>	3. [Total CMS (CEMS and PEMS) Downtime] X (100)/[Total source operating time] _____ % <sup>2</sup>

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS (CEMS or PEMS) downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in this condition shall be submitted.

On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

